

AMERICAN BUILDER

Including "BUILDING DEVELOPER" and "HOME BUILDING"

A SIMMONS-BOARDMAN PUBLICATION

Vol. 49.

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No. 5

CONTENTS FOR AUGUST, 1930

Editorials	45-48	Gas Station of Charming Lines.....	70
Residential Building on the Up Turn.		Home Plan Suggestions.....	71-80
Realities in Home Building.		Five Room Stucco Cottage.	
The Property Owners' Division.		The Lure of the Spanish.	
A Symphony in Lights and Shadows.....	49	Three Small Home Designs.	
Frontispiece Photograph of Rare Beauty		Three Inexpensive Home Plans.	
"Home of Ideas" Is Success Key.....	50-54	Attractive Six Room House.	
Office and Sales Room Rich in Modern Home Sug-		Half Timbered English Style.	
gestions Seen as Powerful Business Builder; an		A Study in Balance.	
Interview with J. Harold Peterson.		A Colonial Design in Brick.	
Eight Steps to Profits in Modernizing Old		Interesting Stucco Work.	
Homes	54-55	Details of Bathroom Cases.....	81
A Business Building Lesson in Cartoon Style; How		A Heavy Timbered Porch Entrance.....	82
Home Modernizing Jobs Are Created.		Our All-Feature Home.....	83-87
Many Modernizing Appeals.....	56	Complete Working Plans of a Side Hill English Type	
Timely and Helpful Observations for Builders and		Home of Eight Rooms and Attached Garage.	
Dealers.		Framing an Eyebrow Window.....	88
Modernizing Suggestions.....	57	From an Architect's Note Book.....	89
Architectural Sketches Show Three Ways of Modern-		Simple Truss Framing.	
izing a Typical Small Cottage		A Leaky Fault in Construction.	
How to Enlarge and Beautify a Little Old		Correcting an Unsightly Fault.	
House	58-59	Detailing a True Ellipse.	
Five Different Schemes for Improving an Old Style		How Dan Does It.....	90-91
Cottage.		Handy Kitchen Shelves.	
Builder Magic Transforms Sick Block..	60-61	To Make Tight Valleys.	
Business Revived for Old San Diego Store Building		Making Tapered Posts.	
by Clever Modernizing.		Convenient Sanding Block.	
Concrete Floors for Residences.....	62-65	Placing and Leveling Corner Pegs.	
How to Design and Build the Three Popular Types,		Inexpensive Stair Construction.	
Solid Slab, Ribbed Concrete, and Tile and Joist		A Handy Shingle Holder.	
Concrete Floors.		Law for the Builder.....	92
How to Plan a Small Apartment for		What's New Departments.....	93-106
Profits	66-69	News of the Field.....	110-112
Ten Floor Plan Diagrams Illustrating Basic Prin-		Books and Catalogs Received.....	114-118
ciples by Wm. G. Krieg, Architect.		Advertisers' Index.....	139

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BERNARD L. JOHNSON AND CHARLES G. PEKER, Editors



Residential Building on the Upturn

THAT "residential building has ceased to decline and is on the upturn again" is the gist of a significant statement in "The Business Week" of July 9. This authoritative publication—not of the building field but covering all lines of business, with broad sources of information—has the following to say of the home building situation up to June 12:

"After 24 months of continuous decline in residential building construction there was a slight upturn in May for the country as a whole. Awards for single family residential construction were larger than those for hotel and apartment construction in all sections except the city of New York. Demand for small homes in suburban areas adjacent to larger eastern cities increased during May.

"In a considerable number of building centers there was an actual increase in residential volume in May over April. Building contract awards in New York state for May were larger than last year. Residential building contracts have increased steadily month by month since January in the Boston, New York, Cleveland and Dallas Federal Reserve districts. In the Minneapolis district construction awards during the first 11 days of June were nearly 75 per cent above those for last June. Shortages of single family dwellings and apartments are indicated in cities in the Middle Atlantic, the West North Central, East North Central and West South Central regions. A shortage of approximately 10 per cent in new residential accommodations in proportion to the growth of population accumulated in 1929, and very little progress has been seen toward making up this shortage during the first half of this year. There has been a definite relaxation of small mortgage funds by building and loan associations, savings banks and insurance companies, and increased applications for loans for new construction and remodeling and repair work.

"All these signs indicate that residential building, which is a dominant factor in construction and general business activity, has ceased to decline and is beginning to turn upward again."

The F. W. Dodge Corporation, in releasing to the newspapers its tabulation of building contract figures

for June, uses this very encouraging heading, "June Construction Largest Since July, 1929," and continues: "June contracts let for new building and engineering works in the 37 states east of the Rocky Mountains amounted to \$600,573,400. The past month's record was substantially larger than the total of \$457,416,000 for the previous month; showed a good gain over the total of \$529,891,100 for June, 1929; and was the largest monthly total since July, 1929."

To these Dodge figures should be added 10 per cent for the Rocky Mountain and Pacific Coast states, and 50 per cent of the residential classification to cover unreported home building and miscellaneous work in the outlying towns and rural communities not covered by the Dodge reporters. These items the AMERICAN BUILDER estimates conservatively at \$108,465,090, which would bring the true total for June for the entire United States up to \$709,038,490, and the total for the first half of 1930 up to \$3,191,520,930.

Straus Survey Optimistic

Sounder conditions for improved real estate are steadily developing throughout the nation, according to S. W. Straus & Co., in a statement issued July 20, following a nation-wide survey of the building and realty situation. In addition to pointing out that the rental situation is improving, the survey intimates that the present period of readjustment in the building field is nearing a much hoped for end.

"The data reported again make clear the fact that throughout the country generally sounder conditions for improved real estate are steadily developing," the Straus survey states.

"With this gradual trend toward well balanced conditions of supply and demand, the rental situation is improving in corresponding degree, by reason of the removal of surplus space from the market. A better tone thus is being imparted to the entire real estate situation, particularly in the larger cities of the nation.

"As a further indication of the increasing stability of improved real estate conditions, it is to be noted that the federal census reports now being announced reveal substantial population growths in the principal cities of the country. Increased population means increased

demand for housing space of all kinds.

"Let us take for illustration the census report covering New York City. This shows that during the ten year period there was a growth of more than 1,342,000 in population. To assist one in trying to visualize this enormous gain, it might be stated that New York City, in order to fulfill its normal housing requirements during the last ten years thus has had to construct another metropolis within its boundaries as large as the city of Detroit.

"Chicago, within her boundaries, has had to build another city larger than Washington or Milwaukee. And in all the other great cities of the country population growth has necessitated great construction projects such as office buildings, hotels, apartment hotels, and apartment houses."



Realties in Home Building

IT seems to be quite popular of late for convention speakers and business writers to bring charges of gross inefficiency against home builders and the home building industry; and to predict some entirely new approach to the home building problem that will, presently, revolutionize this great and time honored industry—cut costs, increase quality, and put every American family into a single detached home of its own.

Something radically new and different in building materials is hinted at and promised. New methods of building, of financing, and of marketing are predicted. The efficiencies of mass production, as in factories and in big industry generally, are foretold by these experts and convention authorities.

All this makes good reading—and gets a big hand at the meetings.

Looked at sanely, however, what really is there to these criticisms and predictions? Can we expect some great and sudden overturning of our customary home building practices?

The AMERICAN BUILDER believes—viewing these problems in the light of its long experience—that advancement in the home building field will continue to be, as in the past, a matter of education and of gradual development. Improvements will come, as in the past—so it seems to this publication—through the increased proficiency of the men in the home building business.

The Indictment

The charges which are being brought, either directly or by implication by these critics, against the men of the home building business are:

1. That they lack the skill of the old time craftsmen;
2. That building materials are not of the quality they used to be;
3. That the organization of the home building

job is inefficient and the resulting construction poor;

4. That the home designs generally used, being mostly builder-planned, are crude, lacking in style;
5. That financing charges are too high;
6. That the builder, having been dubbed "speculative," is irresponsible, and will "skin" the job if he gets a chance.

—and finally that the combination of these half dozen faults has killed the market for new homes and improvements by impairing that public confidence which is necessary to any thriving industry.

The above is a serious body of charges against the home building industry and should not be permitted longer to go unanswered. These charges are not true; but before answering them, let us sketch briefly the *new order* of things which, according to these critics, is presently to hold sway throughout the whole building industry.

Rosy Promises

In place of the old order of things in the home building field a number of radical changes are proposed and predicted by these speakers and writers; and their press releases the newspapers pretty generally have regarded as "good copy." In general they are as follows:

1. That the work now being done at the building site must be done back at the factory;
2. That something entirely new and different in building materials must be discovered or devised (and most certainly will be), which will lend itself more easily to these new requirements;
3. That factory efficiency and big industry efficiency will be ushered in—probably controlled by a half dozen giant corporations, in place of the three hundred thousand local builders, dealers and carpenters who now control this annual four billion dollar home building industry;
4. That home designs will be different, and much better, of course. They are to be *standardized* for factory mass production, and yet so "styled" as to appeal to every home seeker, both masculine and feminine, and so *diversified* that there will be no monotony on any street or in any subdivision;
5. That financing costs and building costs are to be so reduced that every family now paying rent, however small, can just as well be living in its own home instead, since the down payment is to be so small and the carrying charges so modest;
6. That in place of the multiplicity of local builders and dealers—who are relegated as irresponsible, since they do not possess a

national credit rating, although at home they are among the community's most respected citizens—home seekers will be given to deal with in this new era a group of huge national concerns of standing, each organized "vertically," as they say, that is manufacturing, distributing, retailing, financing, and building, all under one management.

And so, if and when these half dozen rather basic changes come about in the home building field, public confidence is going to be restored, and a very active home building season of a very superior sort is going to be ushered in!

Interesting, of course; good convention stuff and very quotable in the newspapers; and possessing just enough foundation of fact and *of wish* to give such reasoning a certain plausibility.

What History Teaches

The AMERICAN BUILDER has given all these matters close study for a great many years. We have seen great advancement made in the science and art of building; but this progress has been gradual. It has come about through a slow and patient process of educating the building public, with the manufacturers for the most part leading the way.

There has been little of the spectacular about this development; in fact, it has come about so quietly that it is easy now for special interests to bring charges of *no progress*, and to malign and traduce the building industry without having their statements seriously questioned by an unthinking audience.

But the facts, when reviewed sanely, look quite different. The men who plan and build homes and the great industry which serves their needs have nothing to be ashamed of nor to apologize for.

A Proud Record

Better homes are being erected today than ever before in the whole history of the world. The royal families of old did not enjoy one-half the comfort, convenience, luxury and wholesome living in their palaces that the average American citizen today possesses in his modest yet modern, well-equipped home.

The home building industry has its troubles and its shortcomings, that is true; but they do not lie chiefly along the lines of the six indictments mentioned above, nor will their solution be finally achieved, in our judgment, by any such radical moves as we have recently heard predicted.

Those directly connected with the building industry know full well that the contemptuous and slighting remarks leveled at the men who plan and build homes are not justified.

They know that there is no lack of skill among present day craftsmen—but competitive bidding and the unwillingness to pay a fair price for quality have put a premium on less-than-the-best, and have pre-

vented builders from delivering the quality of which they are capable.

They know that instead of home building materials being of poorer quality they are today really the best that history records. Building materials have been improved and perfected. Take lumber, as an example; in spite of all you hear about old-time lumber being so superior, the fact is that never before was lumber so perfectly cut, cured, and graded as it is today. The same process of improvement has been going on with all other materials also. Their quality has been established, and at the same time, many economies in manufacturing have reduced their cost.

Those connected with the building industry also know that in organizing the average home building job for efficiency much has been accomplished. Power mixers, hoists and saw rigs; power hand tools and special tools of all kinds; power painting equipment, excavators and motor trucks—all have speeded up the work of the average home builder and have made him efficient and mobile to a degree undreamed of even twenty years ago. Dozens of items formerly made laboriously by hand on the job are now made better and much more cheaply in the planing mill, shop or factory.

They know that in home designs builders are using good taste, and also that the homes are being built to fit the needs and the purses of the people in each community. Home design seems to be peculiarly a matter of individual preference and any attempt to dictate style to the American home seeker and his wife seems foredoomed to failure.

Indictment No. 5 has to do with financing costs, and if these are too high it is certainly not the fault of the builder. This responsibility must be borne by the bankers, the mortgage brokers and others.

The final charge so casually made against home builders would, if true, completely ruin both them and their usefulness to their communities. They are called speculative and irresponsible; and air-tight specifications are supposed to be necessary when dealing with them. After many years of close association with builders, both contract and speculative, the AMERICAN BUILDER is able to testify that there is no more honest and upright body of men in any business or profession. They are creative men; *builders* in the true sense. They make day-dreams come true; they take a mental picture, vague and half-formed, and clothe it in wood, brick and cement; and it exactly fulfills the hopes of some certain home seeker.

Speculation of course there is in the home building business, whether the house is built on contract or for sale, but no more of speculation than every business man encounters in the pursuit of his own business, whatever it is.

And certainly it is not going to lessen the ultimate speculative risk either to have local building improvements controlled by huge out-of-town firms, unfamiliar with the local conditions, or to reduce home financing requirements to a point where the owner's equity is so small that he has little incentive in hard times to keep possession and continue his payments.

A Scattered Market

It is very easy in a complicated situation such as that presented by the home building industry to be mistaken as to real causes and to set up analogies between home building and some other industry such as the automobile business—analogs which, because of the radically different nature of the home building market, are false.

Home building is more like farming than automobile making. It is very personal and very much spread out. In a normal building year 500,000 individual homes are planned and built in the United States; and, except in a few favored locations adjacent to the largest cities, each of these home building enterprises is isolated. The nearest other home building job may be ten blocks away or ten miles away. How are mass production and mass assembly to cope with such a scattered market?

Henry Ford taught the world how to make motor cars on an assembly line; and they roll away on their own four wheels and by their own power, right to the door of the buyer. But homes are *built*; they are tied to the soil, "founded on a rock" and become a part of the landscape. House moving is slow and cumbersome.

No, the attainment of more efficiency and of lower home building costs can scarcely be looked for along lines of factory assembly and of the delivery of completed homes to owners' lots.

Again, like farming, home building is most individual and personal. Each home seeker has his or her own tastes, ideas, and requirements; and for countless generations it has been the privilege of each home builder to do as he pleased.

The size, design and construction of each new home is wrought out in conference between an individual home seeker and a local professional adviser. What they decide is what is done. This local adviser on home building is usually the contractor-builder, sometimes the lumber dealer, rarely the architect, realtor, or banker. But there is invariably on each home building project this man of the building business, familiar with prices and costs, and the technique of construction, whose judgment is respected and whose advice is followed.

Local Control for Safety

Progress and advancement in the future as in the past will undoubtedly come from the good sense and the enterprise of these active local men of the home building industry. They are in touch with their local market, know what the people want, can afford to buy and can pay for. They know when and where to operate on a strictly order basis and when and where to branch out more "speculatively" and put up some homes for sale or to launch a development.

These local builders are awake to modern ideas, styles and merchandising methods. They are adapting these to their own needs. They are receptive to suggestions. They are learning to work in a business way with other

local building interests so that the industry *as it is* can continue to give the American public what it wants and needs in home improvements.

The AMERICAN BUILDER believes that definite progress is being made by builders and dealers in solving the problems and developing the opportunities of the present situation in the home building field. Realities must not be forgotten, overlooked or ignored. Novel proposals are, of course, interesting and should be examined, and advantage taken of anything helpful; but our prediction is that advancement in home planning and building will continue to be a matter of gradual education and development, with the active local builders very much in control.



Property Owners' Division

PERHAPS the outstanding feature of the Realtor's Annual Convention which was held July 9th to 11th in Toronto, was the emphasis placed on the organization of the Property Owners' Division of the National Association of Real Estate Boards. This movement was launched last year at the Boston convention, and several of the Local Boards have already formed these Property Owners' Divisions. The work has progressed during the year sufficiently that its value and possibilities are now apparent to all. Hence, the action of the officers and Board of Directors at this meeting in giving first place to the property owners' project.

Home building contractors in many cities have long been associate members of the local realtor boards; but never before have property owners, as such, been offered a means for banding together effectively to protect and further their property interests.

The promotion of tax reform is, of course, the urgent work to be done; and if the realtors, with the help of a substantial body of property owners, can bring about an equalization of the tax burden so that real estate will bear only its fair and proper share of the local, county and state expenses, then home building will become much more attractive than it is today, and the building business will be greatly benefited.

A resolution calling for the abandonment of the general property tax for state and local revenues and the development of suitable substitute taxes was prepared by Henry G. Zander of Chicago, chairman of the Federal Taxation Committee and former President of the National Association, and was adopted by the Convention.

A corps of experts working under the direction of the Association will study the problem of taxation, with special regard to these questions:

1. Are income taxes proving a relief to real estate through lowering real estate taxes?
2. To what extent can sales taxes be developed to relieve the taxation pressure on real estate?



NEVELLE STEPHENS, *Landscape Architect*, Santa Monica, Cal.

A SYMPHONY IN LIGHTS AND SHADOWS. It is the Longing for Such Distinctive Beauty That Has Actuated Many a Home Building Enterprise.



J. Harold Peterson

Owen S. King

"Home of Ideas" Is Success Key

*Office and Sales Room
Rich in Modern Home
Suggestions Seen as
Powerful Business Builder*

An Interview with

J. HAROLD PETERSON

*President West-King-Peterson Lumber Co.
San Diego, California*

THINKING ahead of your competitor—making yourself more useful to your community—supplying the inspiration which creates a use for the product you have to sell—those are ways in which success in business is built.

An exemplification of such ideas, which is really in a class by itself, has been uncovered by a western representative of the *AMERICAN BUILDER*. For the contractor, for the building supply man, for the architect, for any business man for that matter—there is inspiration in this example of progressiveness.

Lumber men everywhere for the past few years have been complaining of poor business; since the recent stock market crash general business has been complaining, too—there has been a very apparent epidemic of mental, as well as physical hard times (if such they may be termed). But out in San Diego, California, is at least one lumber concern which believes in the saying that "business is what you make it"; the West-King-Peterson Lumber Company has not only been doing business as usual, but has actually been increasing business through all these "hard times."

In answer to a question as to how they have done this, J. Harold Peterson, President of the West-King-Peterson Lumber Company, says: "The way to success is to put more business into a town than you take out."

Answering further inquiries Mr. Peterson continued: "Before coming West I operated thirteen lumber yards in Ohio and Michigan, in communities where competition was so intense and keen it was predicted there was no room for a newcomer. But I found that by applying modern merchandising methods to the lumber business it could be made to pay—and satisfactorily, too.

"Moreover, I was convinced that this was not a business formula peculiar to Ohio or Michigan, but one applicable to any locality; I wanted an opportunity to prove this conviction in other places, so I sold my interests back East and came as far West as I could—to the city of San Diego, way down at the southernmost point of California.

"I was fortunate enough to associate myself with two enterprising men of San Diego, who thought along the same lines as myself—Mr. Owen S. King, an experienced lumberman of eighteen years experience here as superintendent of one of its largest lumber concerns; and Mr. J. H. West who, while not a lumberman, I found ready to back the enterprise with sufficient funds to complete our capital and provide ample working funds.

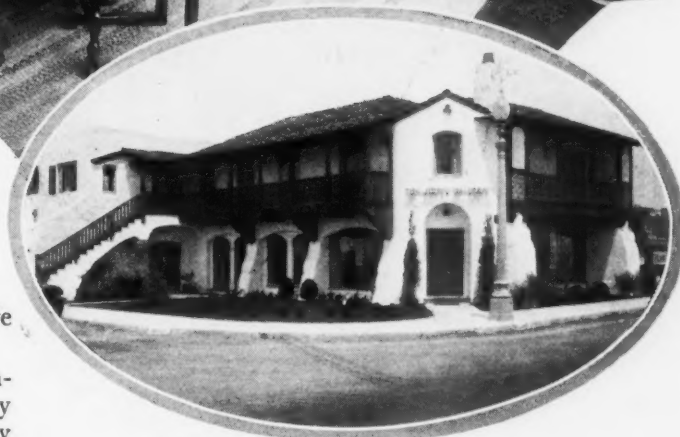
"What you see around you here is the practical answer to these convictions of mine—they have been applied here, have been found as successful as back in



Located on a Main Boulevard with Intriguingly Winsome Office and Display Room
Masking the Supply Yard and Shops.



"The Home of Ideas" Has Become San Diego's Center for Home Planning and Improvements. Rooms done in Correct Period Styles invite and inspire the home-seeking public.



Ohio and Michigan, and are proving themselves more and more every day."

These three men agreed that the business of furnishing materials for homes is the most enterprising industry of the far West—where the population is doubling every ten years—and that this business is just as deserving of and receptive to modern merchandising methods as the automobile business, furniture business, or other lines which present their products in an attractive manner. The business which they have built is not so much a business of merely selling lumber, as it is of visualizing countless ways in which their products can be used; their plant is not just a lumber yard—rather a decidedly up-to-date department store for those things which go into the building of a home.

Years ago the pioneers built their cabins from hand-hewn logs, and it was a masculine effort entirely; woman had no part in this except to design the proper place for the crib and spinning wheel. Today this has all been changed, and while the man looks after the selection of his carpenter and supervises the work, it is the woman who plans the layout of the rooms, and selects the inside fittings for the home.

To woman belongs the honor of bringing into the building industry most of today's competition. It is her demand for labor-saving devices, built-in conveniences, period mantels, multiple paneled doors, etc., which has changed the home from a mass of jig-saw work to the up-to-date vista of beauty that it is today.

West-King-Peterson Lumber Company recognized this even in the selection and building of their plant. They came to San Diego in spite of the fact that seemingly there were plenty of lumber companies here already; they located their plant, not in the conventional lumber district, but out from the city center about fifteen minutes on a main boulevard over which thousands of automobiles are constantly passing (yet handy to convenient railroad trackage); they put their plant, in so many words, where the women of the city, and the visitors to the city, could see it, and they made a bid right off the bat to the eye of woman by giving the frontage of their plant an atmosphere of residential beauty.

The yards lie back of two front show-buildings—one on the left and one on the right of a center driveway.

The left-hand building is of French Normandie type, and houses general offices, together with paint and hardware display stores.

The right-hand building on the boulevard is of Spanish type, and they call it "THE HOME OF IDEAS," a building devoted almost wholly to sales promotion. Recognizing woman as a most important factor in home

development, the visitor to this second building is met by women, and capable women, too, experienced in all the approved arts of creating attractive homes; you consult with women who are skilled in helping to plan things from a woman's point of view—as well as men who can combine those plans with the practical and economical methods of putting them into effect. Everything is smoothly covered from the selection of design to the finishing of the home—including assistance in obtaining financing, selecting architects, contractors, and other factors if and as desired.

This "HOME OF IDEAS" building is most unique—and most interesting; it actually makes you want to build a home, because of the many suggestions you see there in life-size form. Every room in this "HOME OF IDEAS" is different in design, and there are eight of them. There is an early American room; a modern-

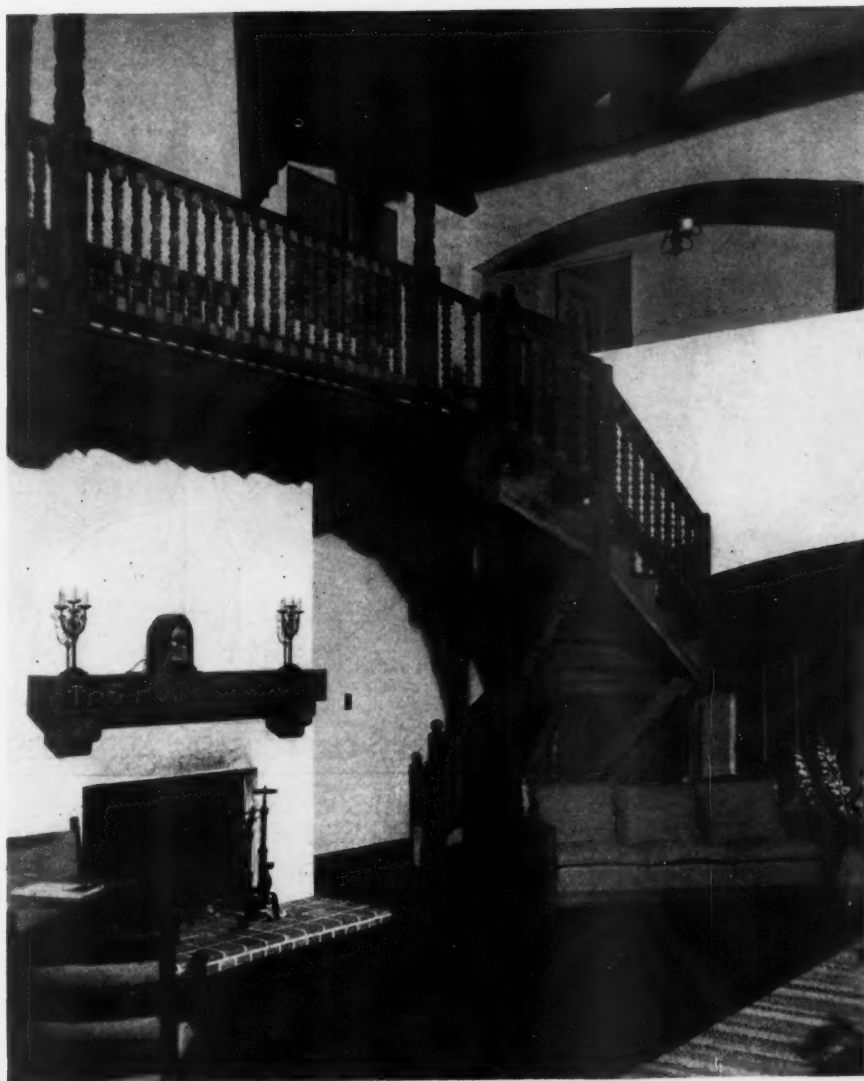
istic room; and because the company operates in California, there is a room paneled in true California style showing the beautiful effects which can be obtained from the use of California redwood; there is a room with a studio ceiling, where the home-builder may sit in an easy chair before an attractive fireplace, look over plans, and peruse magazines on building (including the *AMERICAN BUILDER*, which finds a prominent place there); there is an Art Gallery where San Diego architects are (gratis) enabled to display easel exhibitions of their suggestions for beautiful homes of all types and sizes; and so on through this building and out to the mills, work-shops, and yards in the rear where one finds the very latest developments in high-speed electrically driven ball-bearing machines of all kinds are used to create just the effects a builder may desire. This company does not function as an architect, nor does it



Views of the Cabinet Shop and Mill Where Special Work Is Put Through for Builders.



The Fireplace Corner of the Two-Story Central Foyer of "The Home of Ideas." Here the prospective home builder is attracted and his or her interest in the homebuilding enterprise is easily encouraged and the difficulties overcome through consulting with the King-West-Peterson staff.



build homes—it aims to help the prospective builder plan wisely, choose good architects and contractors, and supply materials which will give satisfaction; it has a Service that really serves and visualizes all the preliminary needs of a home-builder before the construction actually begins—and even to the finish of the home after it is built.

In this "HOME OF IDEAS" one sees full life-size effects in varied finishes; built-in dressing tables; triangular corner cupboards, attractive mirrors, medicine cabinets out of the ordinary, folding wall tables and ironing boards—even period hardware. The man sees something new in overhead garage doors that operate either manually or electrically, built-in tray cases in closets instead of the old-fashioned chiffonier, illuminated and magnifying shaving mirrors, and other things numerous and convenient. Throughout are many nationally advertised products of demonstrated merit and convenience.

And the problem of color schemes is also solved in this "HOME OF IDEAS," where the doors, window frames, trim, and built-in features are all finished in different effects which are suggestive. A visit through this plant is truly a trip of inspiration—any direct talk about the buying or selling of lumber is notable by the lack of it, but so many inviting ways in which it can be used are shown that you just feel the desire to use it in a home of your own.

They have tied in with this creative form of selling a plan whereby the builder or prospective home-owner is assured an honest house. Through the services of a

national organization they furnish a "Certificate of Quality," which may be framed and placed as a permanent part of the home after completed; moreover there is a "pedigree book" which covers its whole history—testifying as to quality of materials, sizes and grades used, names of architect and contractor, even a surety bond guaranteeing correct weight, quality, measure, and count. West-King-Peterson may sell you the lumber and materials for your home—but you are given definite testimonial records as to its construction and merit—affording a feeling of security to yourself, and a record of great value in case of resale at any future time.

Concluding our trip of inspection through this distinctive building material plant—this source of ideas for the contractor, architect, and home-builder—Mr. Peterson had this to say: "As a result of our methods of display and sales promotion we have, during these trying times (and notwithstanding the country has passed through a very severe financial disturbance), been able to find San Diego lot owners who were entirely receptive to the appeal we offered, and we have been successful in selling a complete line of building materials for their homes, at a reasonable profit to ourselves; as this article is prepared we are enjoying a decided increase in sales and operating profits."

The lumber industry as a whole can well take pattern from this formula for business-building; it is not mere theory—it is workable and proven! Contractors, architects, and home-builders everywhere will be responsive to the kind of co-operation which has been exemplified by the West-King-Peterson business.



LUMBER MERCHANT SEES OLD HOUSES



ARRANGES FOR REDESIGNING SERVICE

PROSPECT SHOWN
SKETCH OF HER HOME BEAUTIFIED

NEIGHBORS DECIDE TO FOLLOW SUIT

EIGHT STEPS TO PROFITS

IN the May AMERICAN BUILDER we outlined an idea for a Home Town Improvement Club by which considerable public interest can be aroused in home modernizing and in new home building. According to the suggestions made the local building interests, including the builders, dealers, architects and loan sources, would unite for a community drive to make the old home town "improvement conscious."

Where this idea has been tried much has been accomplished and building business has resulted.

The question has been raised as to *who* should start

such a community movement. Who, of the several interested parties, is best situated to take the first step?

The answer of course depends a good deal on local conditions, and on the personalities involved. In many places the lumber and building material dealer seems to be the logical center around which the home building and modernizing interests group themselves; and he is accordingly the logical *starter* for the Home Town Improvement Club movement.

An interesting example of just how an enterprising retail lumber dealer can get things started and moving



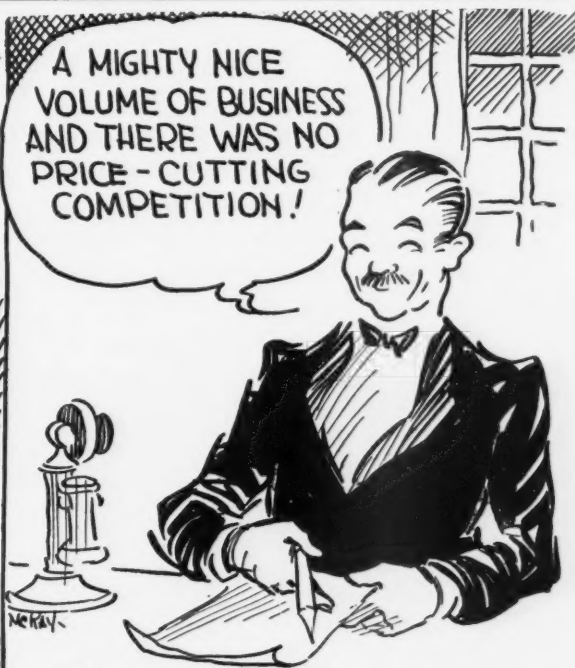
GETS CO-OPERATION OF LOCAL NEWSPAPERS



PROSPECTS READ MODERNIZING AD AND STORY



RESIDENTS PROUD OF BEAUTIFIED NEIGHBORHOOD



MERCHANDISER REWARDED BY PROFITABLE BUSINESS!

IN MODERNIZING OLD HOMES

in his community is related in "Big Trees," the publication of the West Coast Lumberman's Association. It seems that the dealer in question, known familiarly as John Henry, operated in a town of 20,000 people. Building had been slack in John Henry's community and naturally competition for the occasional job was keen. This was not to the liking of J. H., who wanted to keep busy and make a few dollars. He bothered about the problem for quite a while.

One Sunday morning he was walking home from church and instead of contemplating the ideal of human

brotherhood just expounded by the minister, his mind was grinding away on how to increase his sales. Suddenly he stopped, took a good look at a row of old houses and almost shouted aloud. For in those antiquated pre-war mansions and cottages he saw SALES and PROFITS.

Let us listen while John Henry tells his own story: "Once I got the idea the rest was just putting two and two together. Why, this town is full of homes owned by people who can afford to spend the money necessary to bring them up to date, and how could they

spend money that would bring greater satisfaction or provide a better investment?

"I went first to a local architect, and engaged him to sketch new designs from pictures of these old houses. Then I told the local newspapers about my home improvement plan and contracted for advertising space. The newspapers said it was a good thing for the community and that they would support me editorially.

"It was a simple matter to arrange with local financial organizations for a financing plan for anybody who wanted to make improvements and pay for them by the month. The advertising, stories and calls made by my men produced a lot of requests for quotations on the cost of modernizing. A great many of the inquirers contracted to have the work done, and my circle of carpenters and contractors were eager to co-operate by doing good work and by handling every job efficiently.

"My individual efforts were so successful that I got together with the other lumber dealers and we organized a Home Modernizing Bureau.

"I learned quite a few things about modernizing as I went along. I discovered that the idea appealed to

people because it increases the value of a home well over the cost of the improvements, and adds beauty and conveniences.

"Another thing I learned is that home modernizing is more easily promoted than any other kind of demand for building. It seems that almost everybody is interested in home improvements.

"One thing about this modernizing movement that struck me as peculiar is that it won't start of its own accord. It has to be pushed. People who have lived for years in old houses will go on living in them just as they are year after year unless they are inspired to improve them.

"But the thing I like best about modernizing is that it is largely non-competitive. It's not like selling standard items, where there is a temptation to cut prices in order to get the business.

"And modernizing business is a good credit risk, too. Most of the contracts are with home owners. Banks and building and loan companies are glad to help in financing. And home improvement, by its very nature, is apt to be taken up by those who are 'good pay'."

Many Modernizing Appeals

HOME modernizing appeals to owners of old homes from a number of different angles. Following are some of the reasons for modernizing which builders and dealers have put before home owners:

1. The sale or rent value of an old home may be greatly increased by improving its appearance and equipping it with modern conveniences. The increased value is considerably greater than the cost of making the improvements.

2. People not able or willing to pay for the construction of a new house may have their old home modern in appearance and convenience for but a part of the cost of a new building.

3. Most old homes hold a hidden treasure—sound lumber and sturdy construction. The sound lumber in an old house is well seasoned. Architects and contractors often pay a premium for the lumber taken from old buildings for use in building apartments and other structures. Most old houses are of real good construction—a value that the owner would be wise in taking advantage of.

4. Many old homes have an unsatisfactory arrangement of rooms, doors and windows. These features can be made to the owner's liking by modernizing.

5. It is not necessary to do all of the modernizing work on a house at one time, although this usually

is desirable. The owner can determine on the work he wants done and have it completed step-by-step as he is able to pay for it.

6. A nondescript type of house can be changed into a good architectural type, such as an English cottage, one of the Colonial types or an adaptation of one of these styles.

7. A house may be modernized easily, without impairing the strength of any part.

8. Some owners of old homes want to keep them because of sentimental attachment. By modernizing they can retain that to which sentiment is attached and at the same time have modern conveniences and attractiveness.

9. Owners of some old homes would like to have them modernized because of their contrast to the modern houses which have been built around them.

10. An old home can be made absolutely new in appearance with no indications that it has been made over.

11. Unused attic and basement space can be converted into additional bedrooms, dens, sewing rooms, play rooms, studios, billiard rooms or some other kind of special room.

12. Kitchens can be made more convenient and attractive by installing modern conveniences such as built-in cupboards, cabinets, drawers and bins. Frequently space can be found for a dining alcove.

Observations on Modernizing

DEALERS and builders who have been conducting home modernizing activities have learned that:

The making of a single improvement in an old home usually leads to additional improvements.

When one man improves his home his neighbors become more receptive to suggestions for modernizing their homes.

Drivers making deliveries can report numerous opportunities for modernizing worth following up.

The man who drops in to buy a can of paint or a small amount of lumber often is a live prospect for a good modernizing job.

"After supper" is the best time to talk modernizing to prospects, and that it is a paying proposition to keep the office open for a couple of hours in the evening with a man or two on the job to discuss modernizing. Many people who can't be reached during the day are glad to come to the office in the evening, which may be the only time a husband and wife together can discuss modernizing with a salesman.

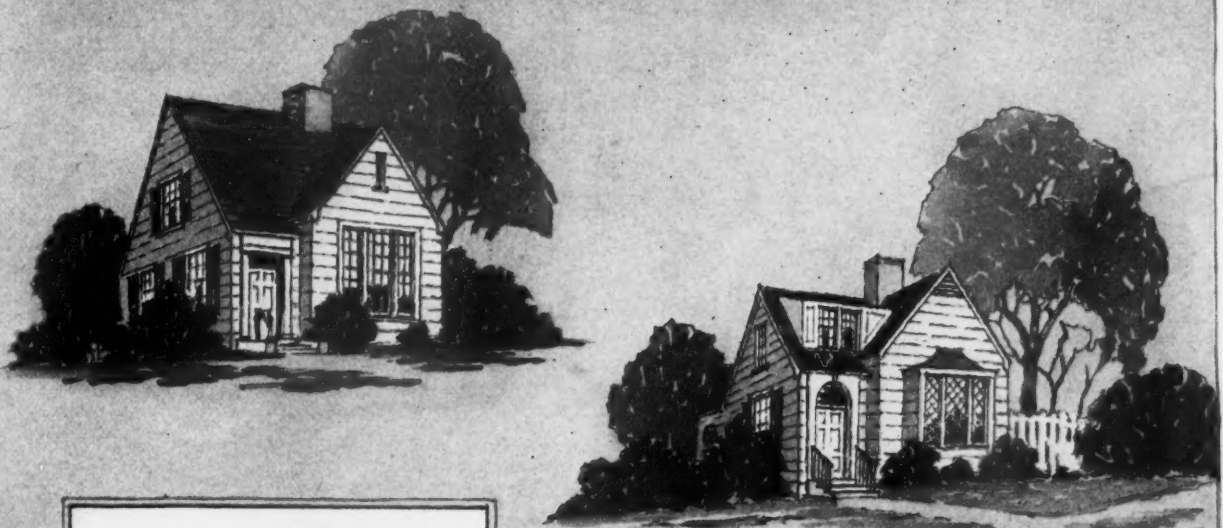
There is less price competition in selling modernizing jobs than in selling standard items for a new house.

People who are indifferent to a modernizing suggestion become keenly interested when shown a sketch of how beautiful their old home could be made.

Women are the principal factor in developing and closing sales for modernizing.

MODERNIZING SUGGESTIONS

HOW TO MAKE CHARMING HOMES



FROM THIS DRAB COTTAGE

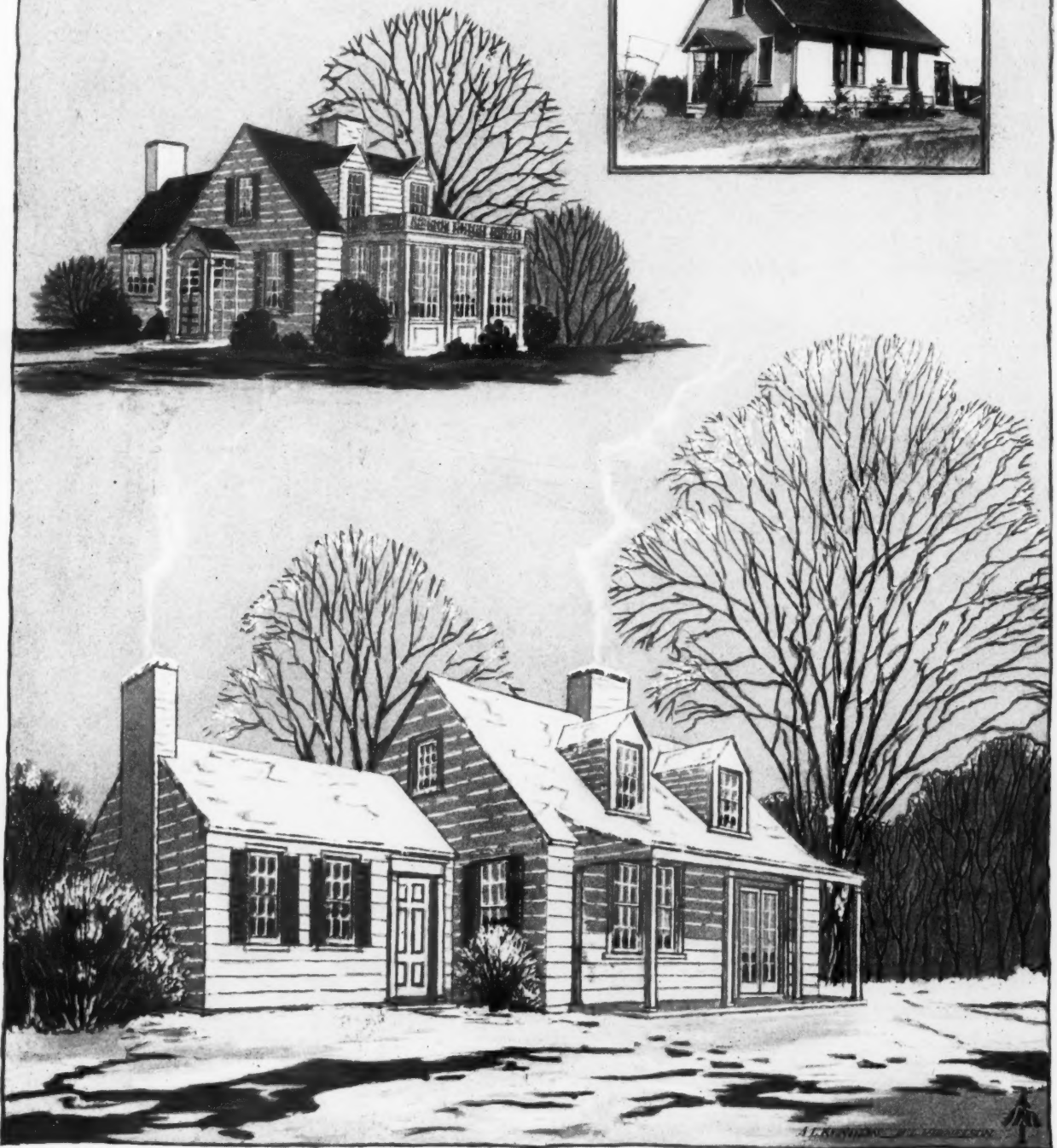


J. E. KUNDZIN - H. L. VERNELSON

THEIR number is legion, these small cottages! They can be readily enlarged and at the same time brought up to date in appearance by the alterations suggested above by the architects of the National Lumber Manufacturers Association.

HOW TO ENLARGE AND BEAU

AN 1890 COTTAGE WITH FIVE —



MANY a family has outgrown its dwelling; the simple little cottage is no longer big enough nor good enough. Additions can be made which work a wonderful change in the style and looks as well as in usable space.

U
TIFY A LITTLE OLD HOUSE

THESE suggestions more than double the size while they probably increase by ten or more the architectural effectiveness of the little cottage photographed on the opposite page.



BUILDER Transforms



*Business Revived for Old
San Diego Store Building by
Clever Modernizing*



To Left: The Old 4-story
Business Block, Grown
Drab and Shabby, Out of
Step with Today's Styles.

Below: Night Illumina-
tion of the New Front,
Which Now "Sets the
Style" in Its Neighborhood.

AN excellent example of what can be done with an old and obsolete building to make it modern and up-to-date—changing it from a mediocre renter to a profitable investment—is shown in an improvement recently made in San Diego, California.

Herbert J. Mann of La Jolla, California (which is a suburban part of San Diego) was the architect in this case, and it is his contention that throughout the country there are hundreds of instances where old and run-down property can, with the expenditure of a moderate amount, be turned into a thoroughly up-to-the-minute income producing investment; he is a firm advocate of this and has done considerable work toward the rejuvenating of old properties.

This particular example which we present here to our readers seemed to be on the toboggan when he was called in for counsel; it was a four-story structure, 50 by 200 feet, built on an inside lot, and running through from one main downtown street to another—between Fourth and Fifth to be specific; in the center of the city, yet part of the past. The exterior was of brick, and the interior was constructed of wood joists and beams, supported by iron columns.

An examination showed that the structure itself was well built and the timbers still sound. It was decided to make no structural changes whatever, adding only five feet to the parapet walls. The old double-hung windows were taken out and steel sash



ER MAGIC ms Sick Block

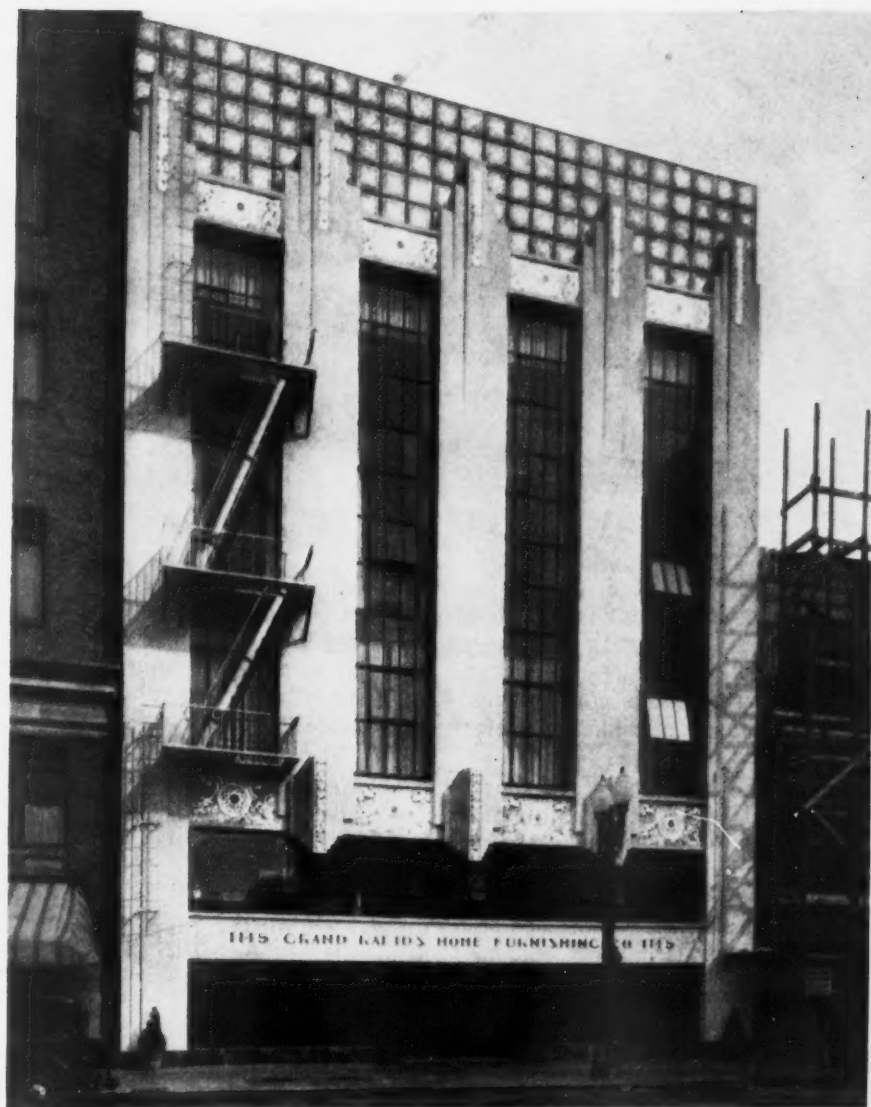
Old
g by

HERBERT J. MANN

Architect
of La Jolla, Cal.

To Right: The New Front
Was Carried Out by the
Architect and Builder in
a Strikingly Modern Style.

Below: Crowds of Shop-
pers Now Testify to the
Pulling Power of the New
Business Getting Front.

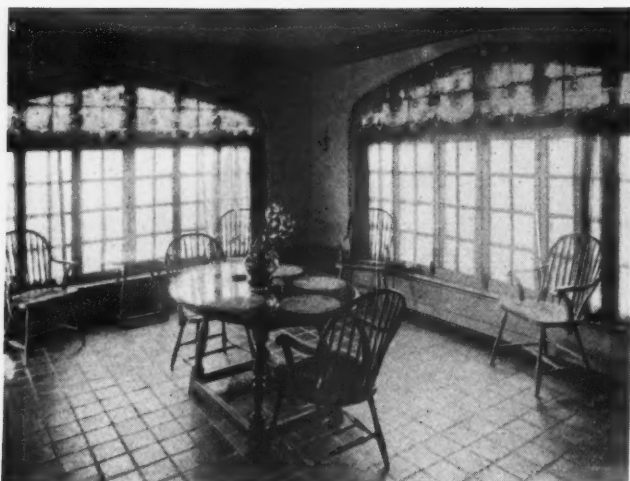


substituted, using the plate glass which had been salvaged from the old windows.

The exterior was lathed with metal lath on steel channels, and then plastered. The ornamentation was of cast plaster, covered with aluminum leaf—and this silver-effect in the frontal decorations is most effective. The body of the new design is of a pink tint, with the ornamentation silver trimmed with black. The old cast iron posts were covered with black glass, which had the effect of removing them from view.

During the twenty years the building had been built various tenants had added mezzanine floors, balconies, and partitions from time to time so that the entire interior was divided up into small compartments, making it very dark and unattractive. The iron columns had been ornamented at great expense with cast plaster capitals and various other ornamentations which were supposed to improve their appearance. In effecting the change everything was removed from the various floors, leaving nothing to obstruct the light, the result being that the interior is so well illuminated that at times it is necessary to draw the shades at the windows.

The cost of remodeling was a very small percentage of the total value of the property and it resulted in changing the old, unsightly building into not only one of the outstanding distinctive units of the city, but has made it a very profitable modern structure.



Cement or Clay Tile over a Concrete Base Is Popular for Sun Room Floors

THE last few years have witnessed a remarkable increase in the number of fire-safe residences built, bringing into popularity one of the most logical methods of fire control—the concrete floor. The reinforced concrete floor is now accepted as a standard type for pretentious homes and as preferred for moderately priced homes.

One of the many other reasons why concrete floors are chosen is that this type of permanent construction precludes such structural defects as warping, cracking, buckling, and reduces vibration and movement of any kind. This greater rigidity adds strength and stability to the whole structure and helps to do away with much cracking in plastered walls and ceilings.

Aside from the structural and utilitarian advantages, another important reason for the remarkable popularity of the concrete residence floor of late years is its decorative possibilities. The variety of artistic treatments has been increased to such an extent that it is now a simple matter to select one suitable to any style of architecture or interior decoration. And most all of them are admirably suited to the means of the average home owner.

The painted or colored floor has proved to be exceedingly popular. The concrete can be painted any desired color or, through the use of special stains, any number of beautiful and artistic polychrome or tint effects can be achieved. This colored surface can then be waxed with ordinary floor wax to produce a most attractive background for rugs and furniture.

There is also a distinct trend toward the use of linoleum flooring. And a concrete slab is an excellent base for this type of flooring. The life of linoleum is not so much dependent upon the traffic over it as upon freedom from ridges and cracks which may cut into the material from beneath. A concrete floor, however, provides a smooth, level base, free from ridges and recesses, to which the linoleum may be cemented.

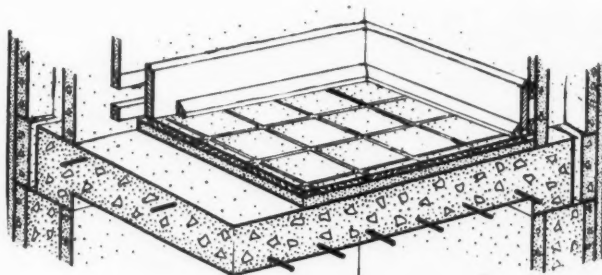
Wood flooring, of course, always will be popular. By embedding nailing strips in the concrete or fastening them to floor clips so embedded, it is possible to lay oak, maple, or other hardwood floorings. The resulting floor is warp-proof and free from movement.

Probably no type of floor treatment offers greater possibilities for artistic expression than the concrete surface itself. It may be marked off into squares, triangles, rectangles or other figures. It may be marked to resemble flagstones, or it may be given a rough textured surface to harmonize with a particular interior scheme of decora-

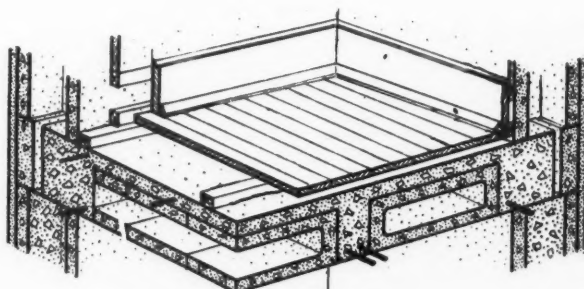
CONCRETE FLOORS

How to Design and Build the Three Popular Types

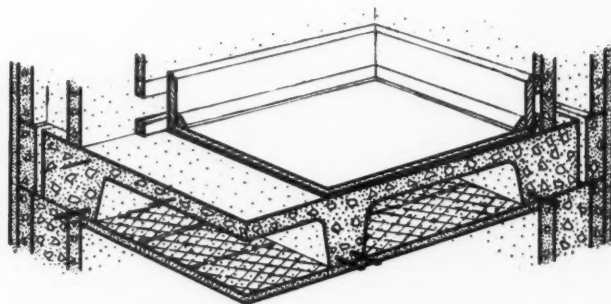
tion. Unique effects may be obtained by the use of enamels or stains or both. Inlay may be used to advantage, and designs worked out with terrazzo, art marble or other tile. These treatments are especially attractive in sunrooms, bathrooms and hallways.



Perspective View of Solid Slab Concrete Residence Floor.

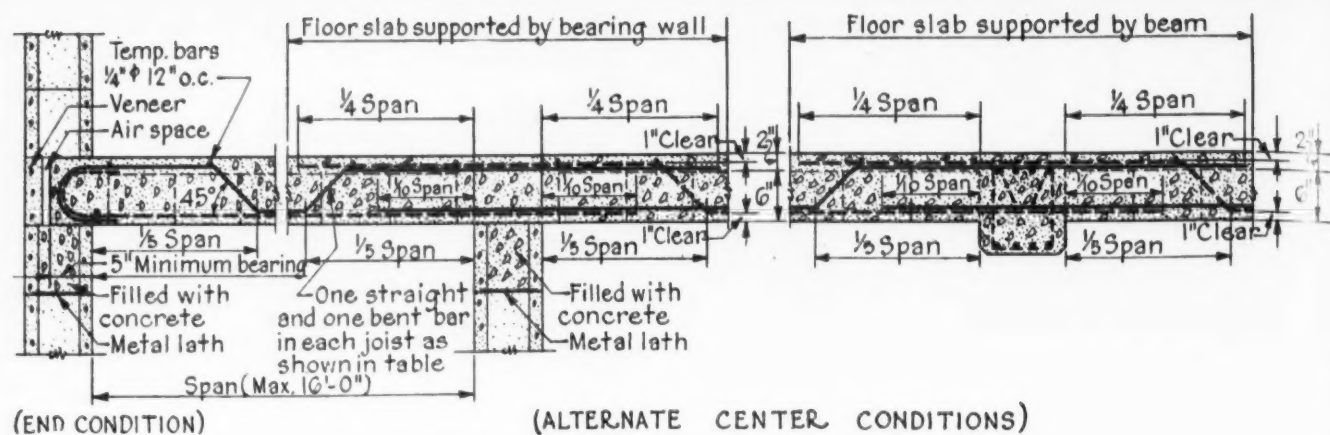


Perspective View of Tile and Joist Concrete Residence Floor.

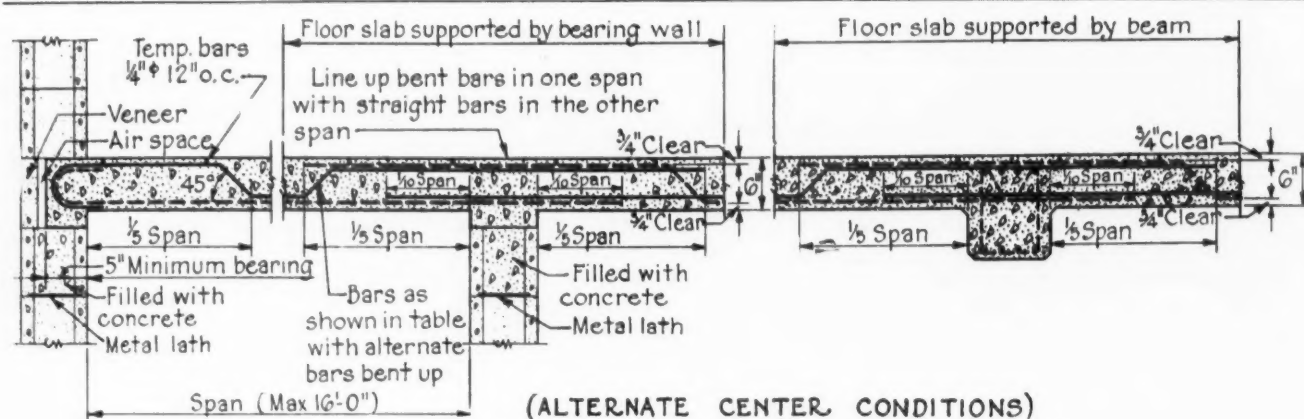


Perspective View of Ribbed Concrete Residence Floor.

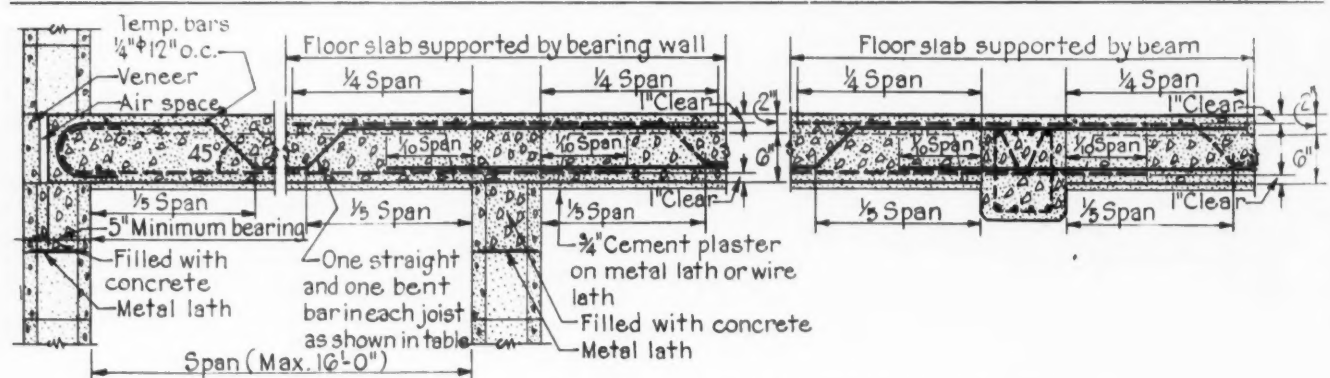
Forms for a Ribbed Concrete Residence Floor.



Longitudinal section through solid slab concrete floor.



Longitudinal section through joist of tile and joist concrete floor.



Longitudinal section through the joist of a ribbed concrete floor.

built and all conduits and pipes have been placed. Size and spacing of the steel for various spans of solid slab floors is shown in Table 1. The reinforcing bars are supported on suitable chairs about $\frac{3}{4}$ inch above the false floor.

TABLE 1
Reinforcing Bars for Solid Slab Floors

Span	Diameter	Spacing
16 to 14 ft.	$\frac{5}{8}$ in.	5 in.
14 to 12 ft.	$\frac{1}{2}$ in.	6 in.
12 to 10 ft.	$\frac{1}{2}$ in.	8 in.
10 ft. or less	$\frac{3}{8}$ in.	7 in.

Temperature reinforcement, consisting either of large mesh metal reinforcement or $\frac{1}{4}$ -inch bars, is placed in the top part of the slab, about $\frac{3}{4}$ of an inch below the surface and at right angles to the main reinforcing steel.

The ribbed type of concrete residence floor is particularly adaptable to long span construction. This type of floor construction requires a minimum amount of mate-

rial for a particular loading and span.

In this type of construction, use is made of inverted pans or forms, usually of wood or 16-gauge metal, over which the concrete is placed to form the floor slab. The pans are supported by 2 by 6-inch planks which also serve as forms for the joist bottoms. Sufficient space is left between the pans to permit the forming of joists of the required width. Joist width in most cases is 4 inches but for spans longer than 16 feet it may be necessary to increase this width. In the latter case it is sometimes more economical to increase the size of the steel reinforcing rather than the width of the joists. For most spans in residence construction, the 6 by 20-inch pans or forms are used and the supporting planks or joist bottoms are spaced 24 inches on center.

The main reinforcing steel is placed between the rows of removable metal forms. Size and spacing of the steel for various spans is shown in Table 2. The steel bars are supported on suitable chairs about $\frac{3}{4}$ inch

above the bottom and the same distance from the sides of the joists, to protect the steel against corrosion and possible injury from fire.

TABLE 2
Reinforcing Bars for Ribbed Floors

Span	Bars Per Joist	
	Straight	Bent
16 to 14 ft.	One— $\frac{3}{4}$ in.	One— $\frac{5}{8}$ in.
14 to 13 ft.	One— $\frac{5}{8}$ in.	One— $\frac{5}{8}$ in.
13 ft. or less	One— $\frac{1}{2}$ in.	One— $\frac{1}{2}$ in.

Temperature reinforcement, consisting either of large mesh metal reinforcement or $\frac{1}{4}$ -inch steel bars is placed in the top part of the slab about $\frac{3}{4}$ of an inch below the surface. If bars are used they are placed cross-wise of the joists.

Small mesh metal reinforcement for plastered ceilings, is held in place by hangers or nails left projecting from the joists when the concrete is placed.

The tile and joist concrete residence floor, consisting of a combination of tile or block and reinforced concrete joists, is much the same as the ribbed type. The essential difference is in the forms. Instead of removable metal pans or wood forms as used in the ribbed type to form the floor slab, tile or block are spaced a few inches apart, and the concrete placed about and over them. The concrete between these units forms beams or joists which support the floor. The units remain embedded in the concrete and become an integral part of the floor. The air spaces in the units increase the soundproof and insulating qualities of the construction. This type of construction likewise presents an excellent base for the application of plaster directly to the under surface when desired.

In building the floor, the tile or block are supported on planks spaced at proper intervals to allow at least two inches bearing of the units on the planks. Planks 2 by 8 inches are most commonly used. These allow enough space between the units to form 4-inch joists, the planks forming the joist bottom. The reinforcing steel, suggested sizes being given in Table 3, is placed in the space between the tile and is supported on suitable chairs about $\frac{3}{4}$ inch from each side and above the bottom. Temperature reinforcement, consisting of $\frac{1}{4}$ -inch round bars or large mesh metal reinforcement, is placed in the top part of the slab about $\frac{3}{4}$ inch below the surface.

TABLE 3
Reinforcing Bars for Tile or Joist Floors

Span	Bars Per Joist	
	Straight	Bent
16 to 15 ft.	One— $\frac{3}{4}$ in.	One— $\frac{5}{8}$ in.
15 to 13 ft.	One— $\frac{5}{8}$ in.	One— $\frac{5}{8}$ in.
13 ft. or less	One— $\frac{1}{2}$ in.	One— $\frac{1}{2}$ in.

Where several concrete residence floors are to be built, it is usual practice to procure adjustable shores and column clamps. The use of these devices effects a saving in form lumber as well as in carpenter work. Double-headed nails are frequently used because they can be drawn easily when stripping the forms or when salvaging form lumber.

There has been a mistaken notion that concrete floors for residences are costly to build. This probably was due to the fact that some contractors were unfamiliar with concrete floor construction and allowed too much in their bid prices. Then, too, it was sometimes necessary for the contractor to buy new equipment which

(Continued to page 110)

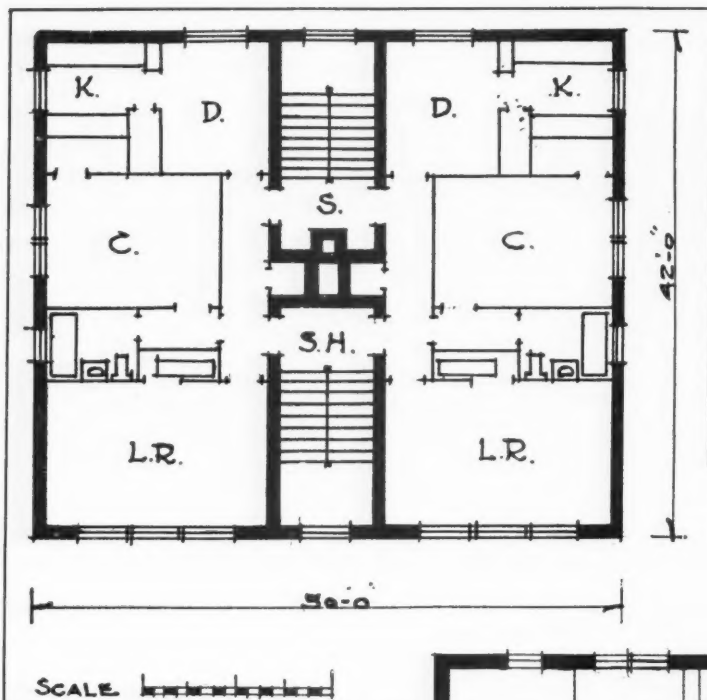


FRONT view of a "dummy" home Sign Board erected by McWilliams and Meloney, builders and developers of Overbrook-Hills-in-Merion, a suburb of Philadelphia. Real stone was used. The three windows, behind which electric lights are placed, give the suggestion of occupied rooms after nightfall.

McWilliams and Meloney say the structure is inexpensive and a most forceful attention-getter.

How to Plan a Small Apartment for Profits

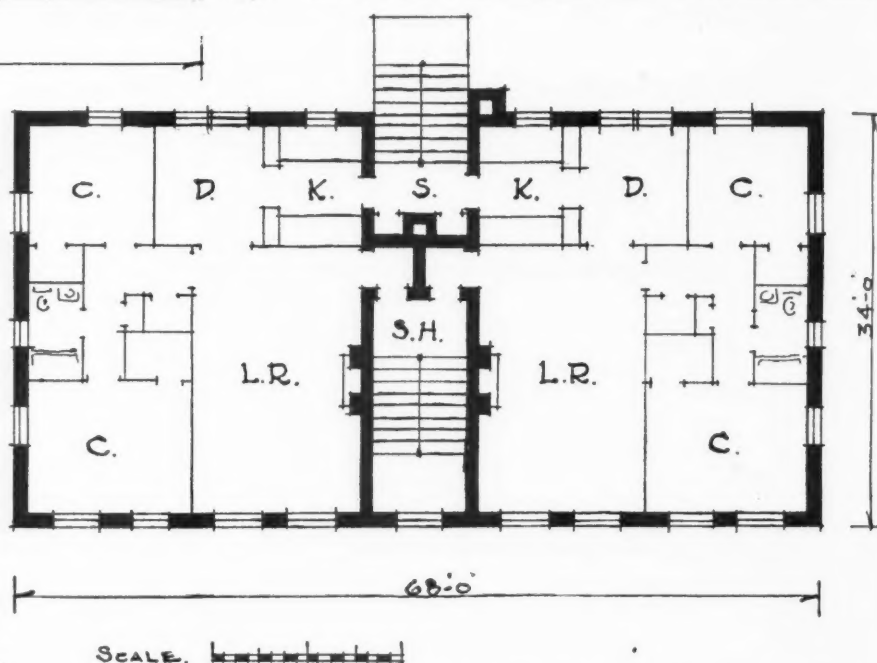
By WM. G. KRIEG
Architect



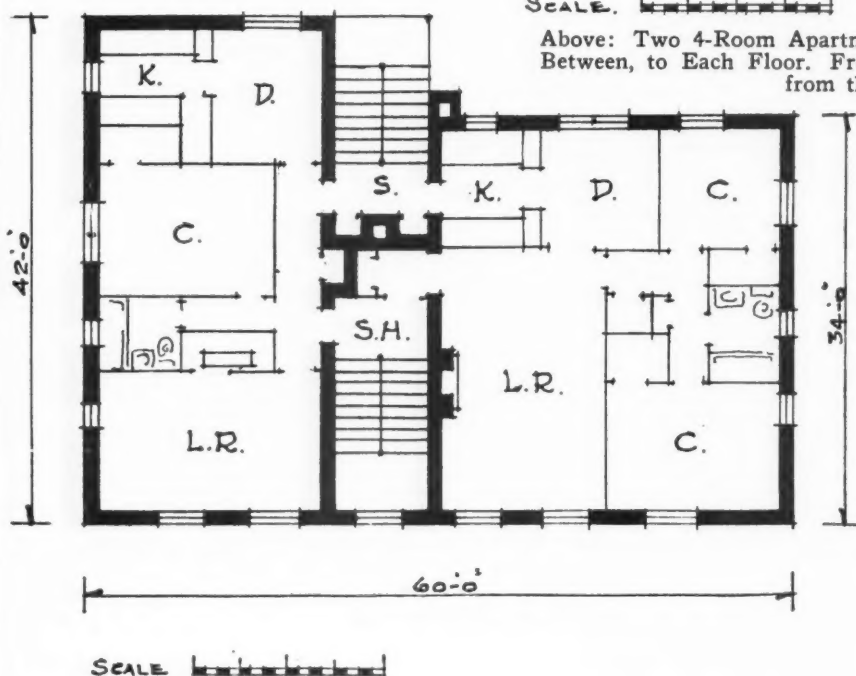
To Left: Two 3-Room Apartments to a Floor, Each Having the Full Efficiency of a Five-Room Suite.

IN response to numerous requests from readers of the *AMERICAN BUILDER*, for small buildings containing two, three and four-room apartments, I am submitting herewith a number of sketch suggestions.

These plans are suitable for either two or three-story high structures with basement space for all the ordinary requirements of this kind of structure, such as: heating plant with fuel room,



Above: Two 4-Room Apartments with Two Chambers and Bath Between, to Each Floor. French doors divide the kitchen-dinette from the living room.



Above: Two Small Apartments to Each Floor, One Has Two Full Chambers, the Other Two Bedroom Capacity by Wall Bed in Living Room.

laundry, storage rooms for tenants, screen storage, meter room, janitor's apartment when desired, etc.

Elevations are not submitted, as they more than anything else should be developed for each specific location with good taste, some individuality and within a reasonable cost limit.

With one or two exceptions, these plans are made to comply with the City of Chicago building code which requires masonry division walls and stair enclosures in buildings of ordinary construction and two exits to each apartment.

In localities where buildings of this kind can be built of frame construction, a brick veneer exterior can be used with dividing walls and stair enclosures plastered on wire lath to make fairly good fire retardant divisions. (Continued to p. 66)

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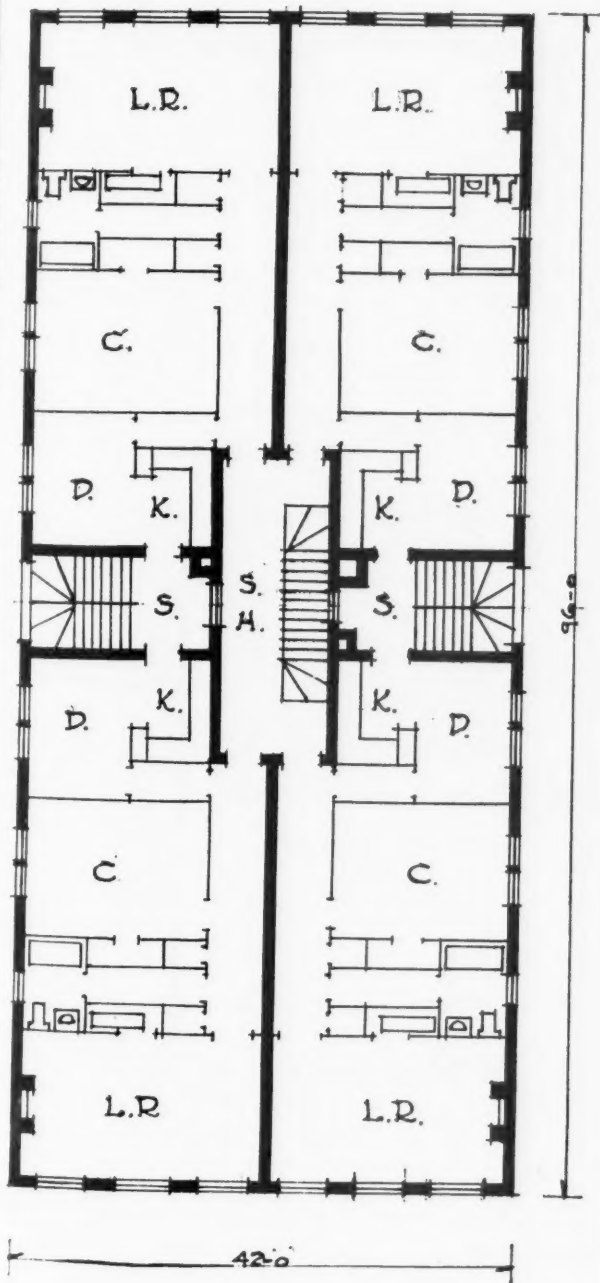
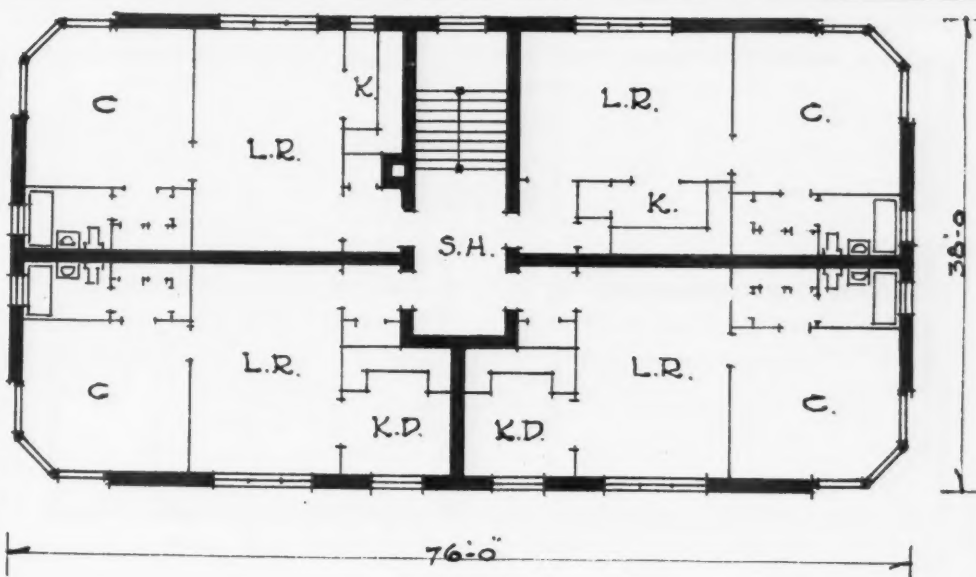
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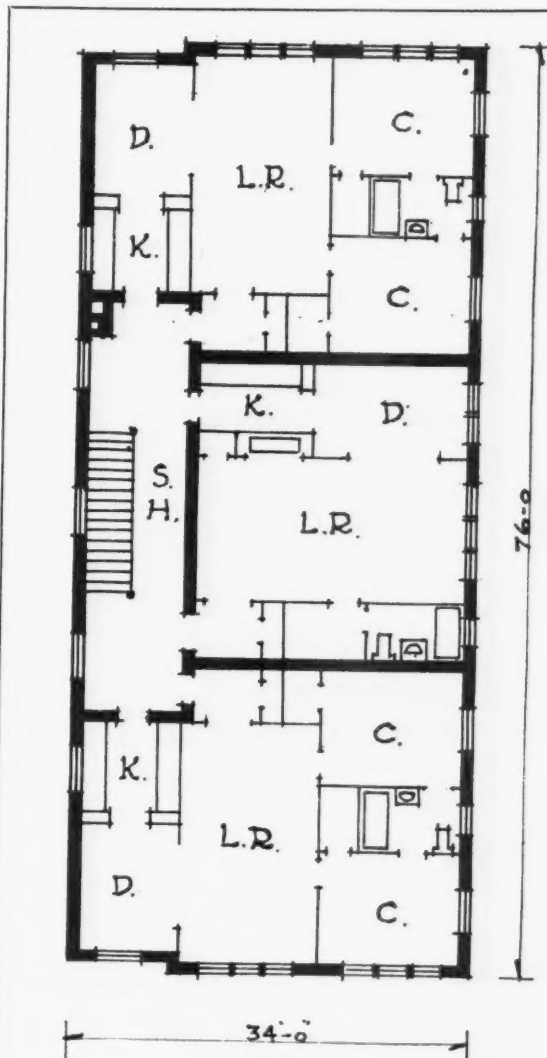
To Right: Two 2-Room and Two 3-Room Apartments with English Basement Entrance Having Only One Central Stairway. Note alternate location of Kitchenette in rear apartments.

Below: Four Three-Room Kitchenette Apartments with Wall Bed in Living Rooms, Providing Five-Room Efficiency. This building has a central stair hall and foyer with a vestibule entrance at grade and two enclosed service stairs. Suitable for inside lot having 50 to 60 foot frontage.



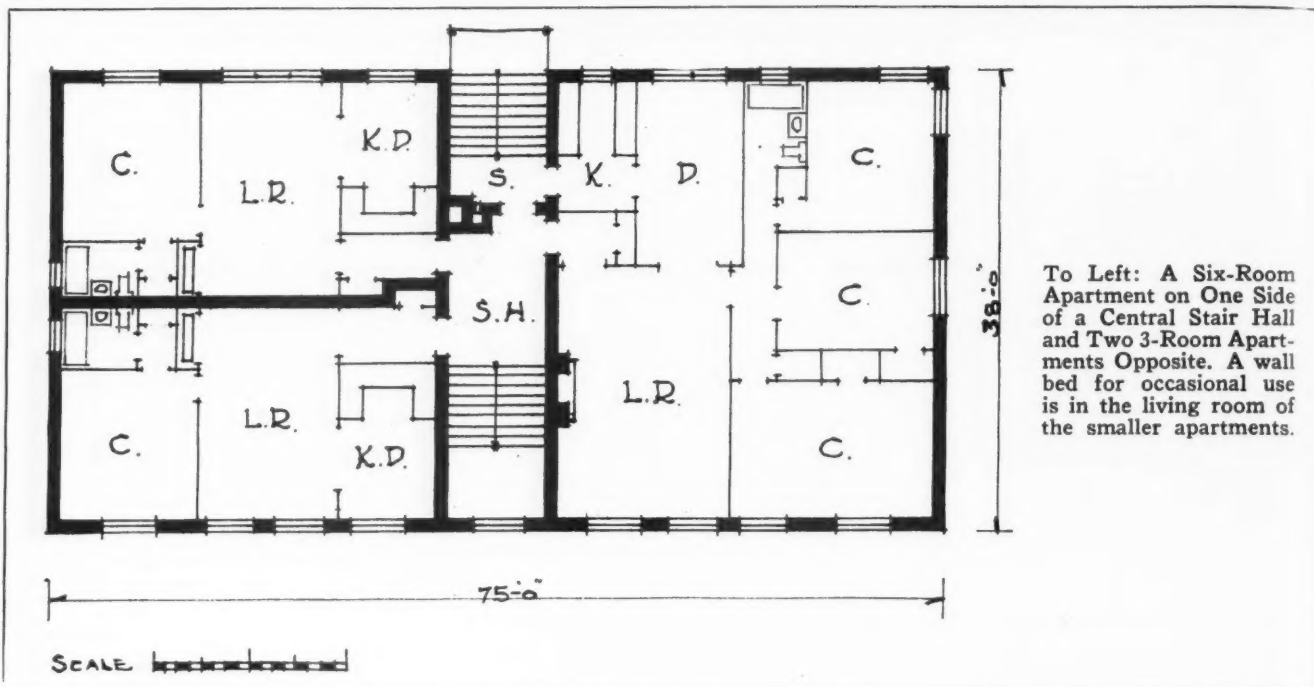
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SCALE



SCALE

Above: Three Kitchenette Apartments to Each Floor with One Central Stair Hall and No Service Stairs. This building is suitable for a lot with 42 to 50 feet of frontage.



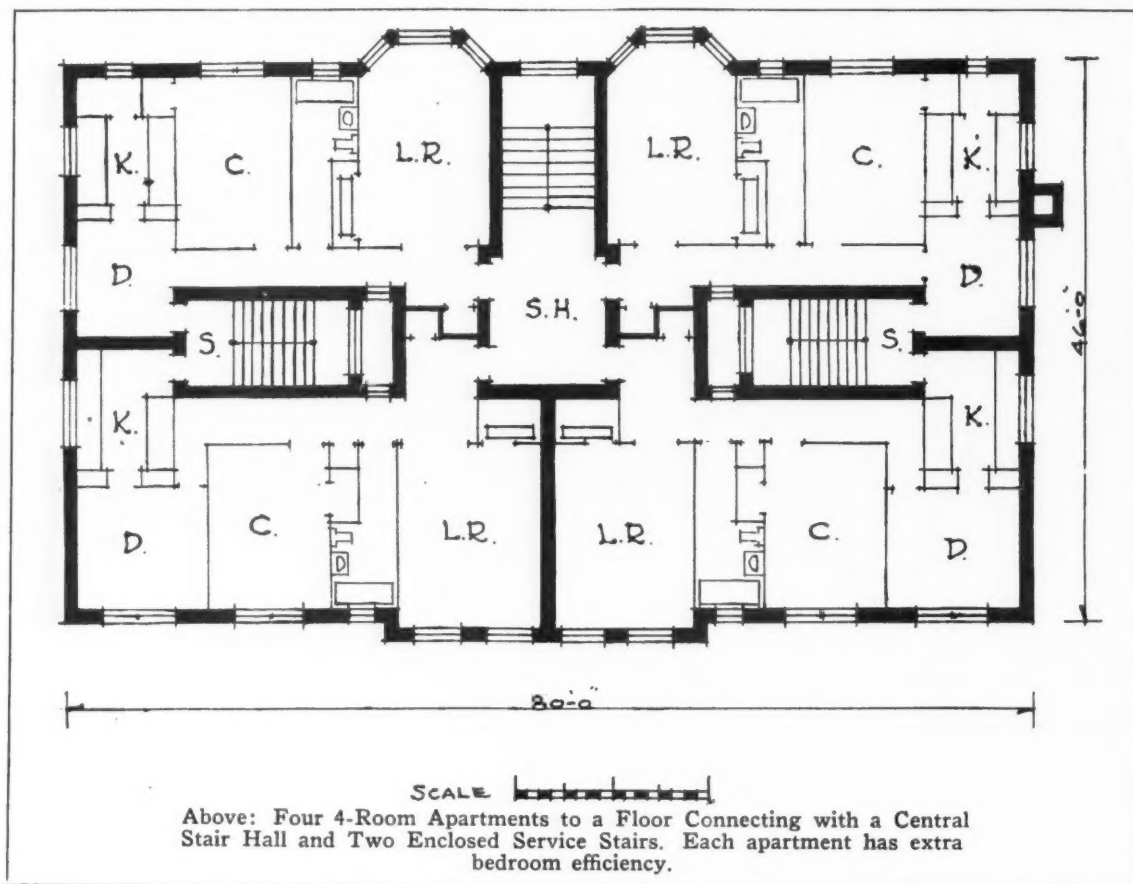
I do not claim that these plans are the acme of perfection or that the same can not be improved or bettered, neither do I consider that they will be appropriate or suitable to fit everywhere. Local conditions must be taken into consideration.

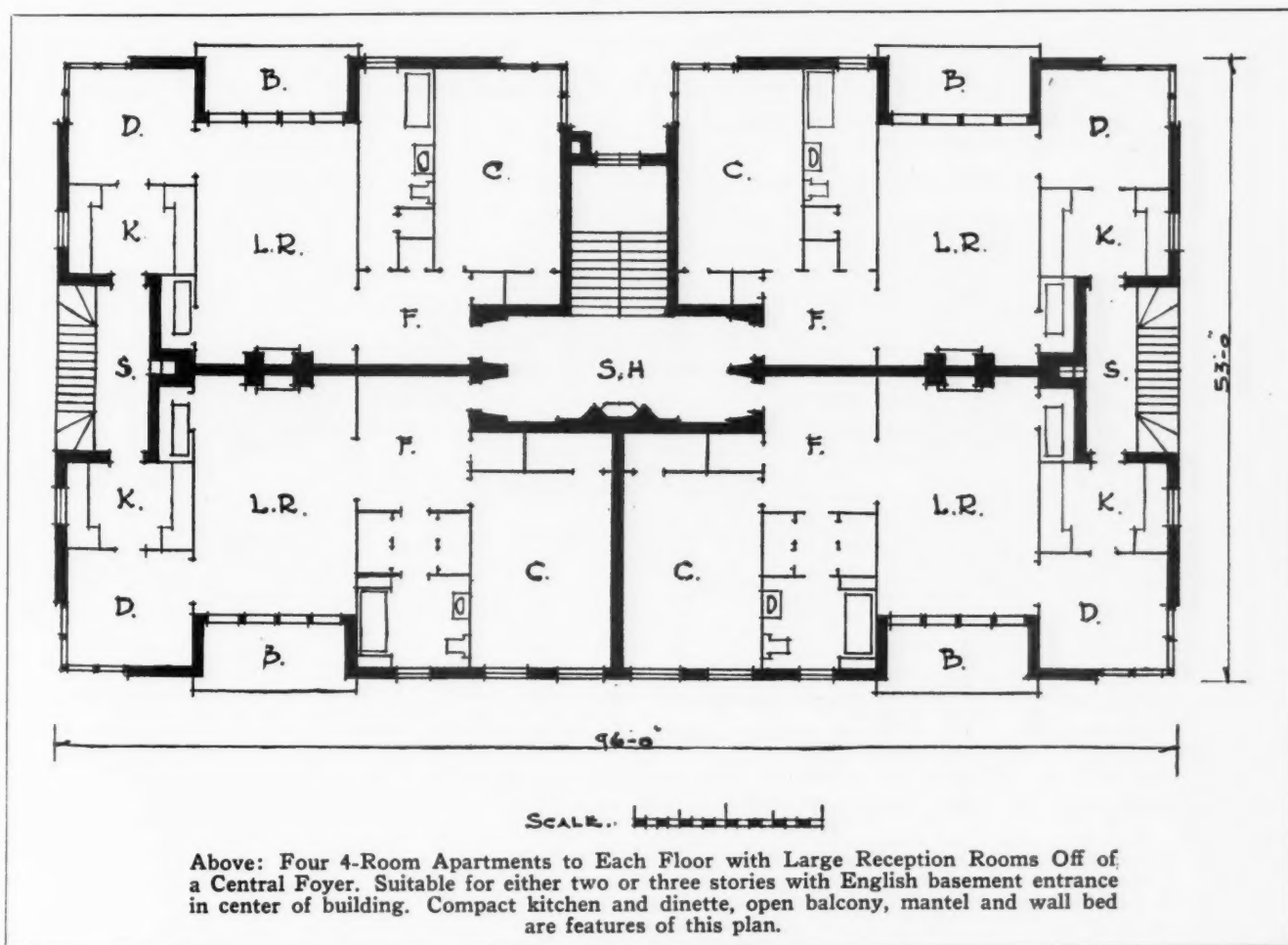
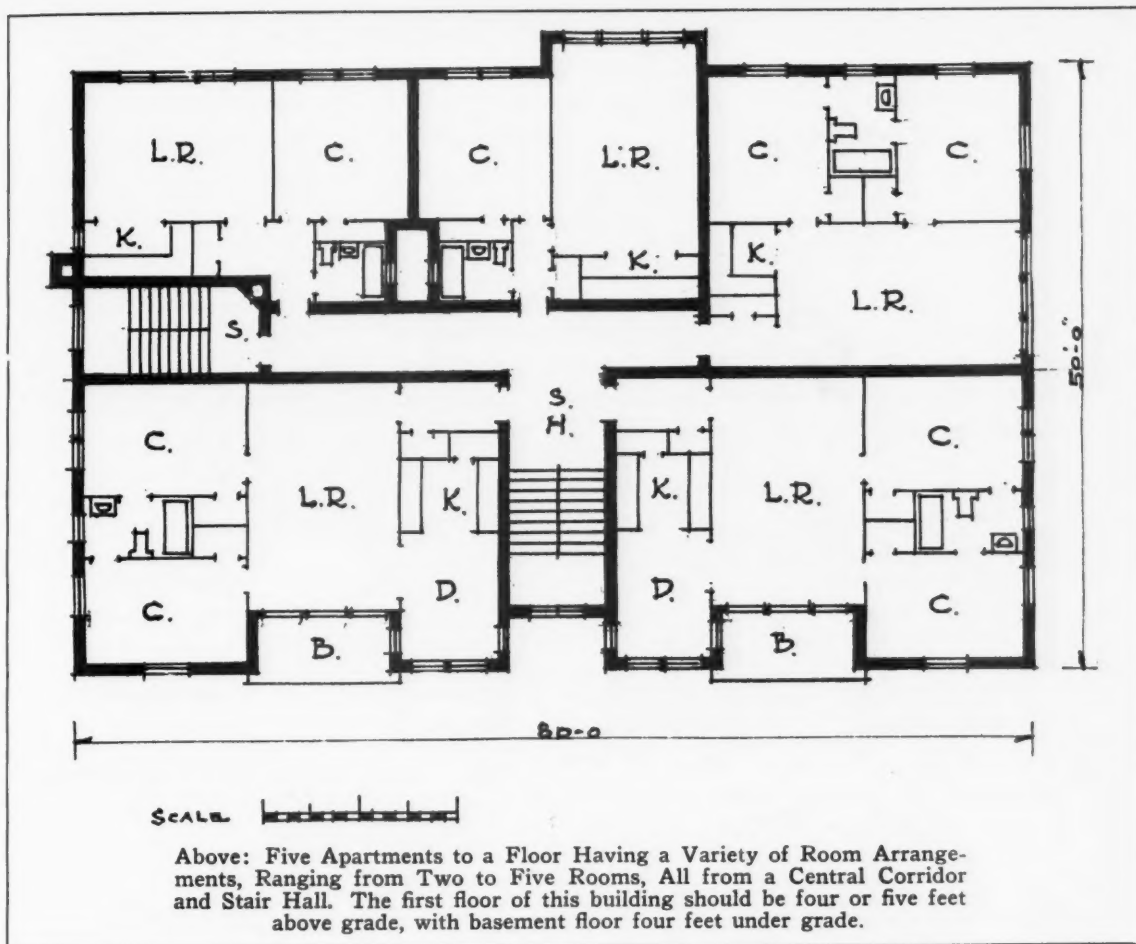
Costs of construction would run anywhere from thirty-four to thirty-seven and one-half cents per cubic foot in the Chicago area because there is an excess proportion of plumbing and fixed equipment in a small area. These costs should be checked against local conditions in Timbuctoo or wherever you are located before taking

them for granted. Check also your rentals and costs of operation and before you undertake building, see that your particular neighborhood is not already overbuilt with small apartments in larger buildings.

Be sure that your building will be an investment, otherwise, if the time comes when you would like to, or must dispose of same, you will find trouble in doing so.

Don't overlook the item of depreciation, some people never get the correct idea of what depreciation in a building really is until they have a fire loss to adjust.



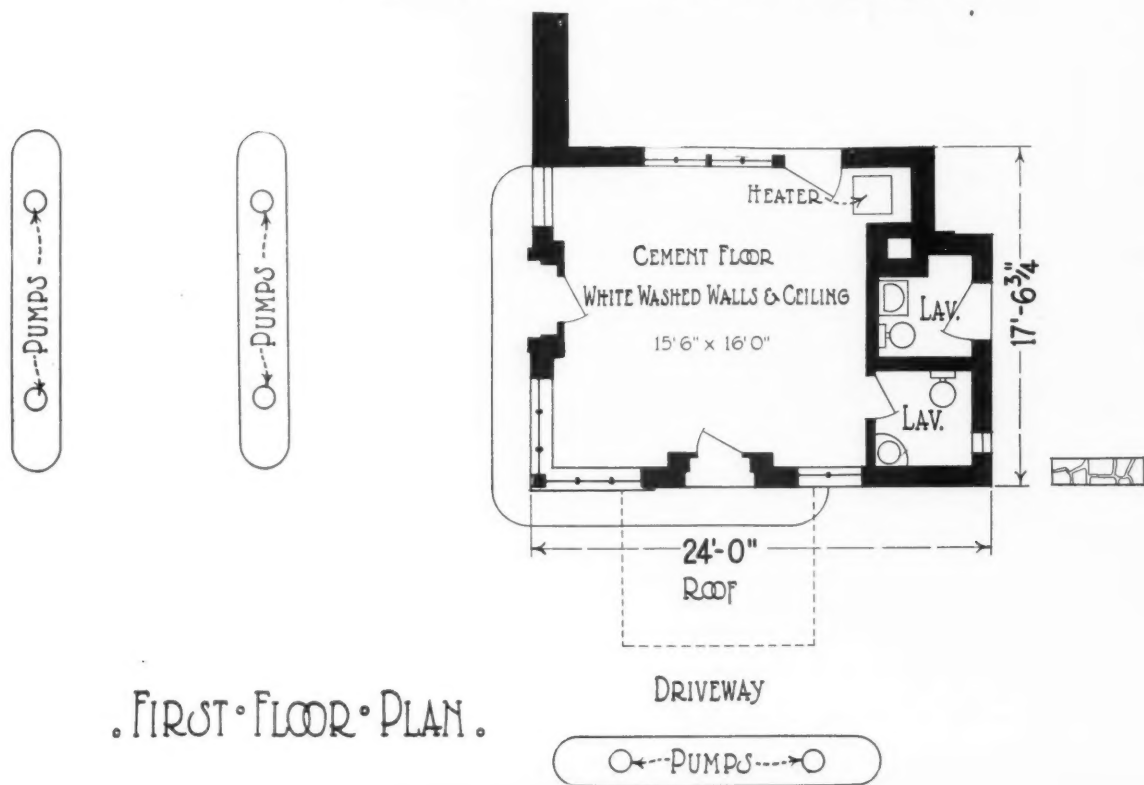




ZOOK and McCAUGHEY, Architects, Chicago and Park Ridge, Ill.

GAS STATION OF CHARMING LINES

Desplains, Ill., Is the Site of this Unusually Attractive Service Station. Its Volume of Sales Proves that Good Designing Pays



FIRST FLOOR PLAN.



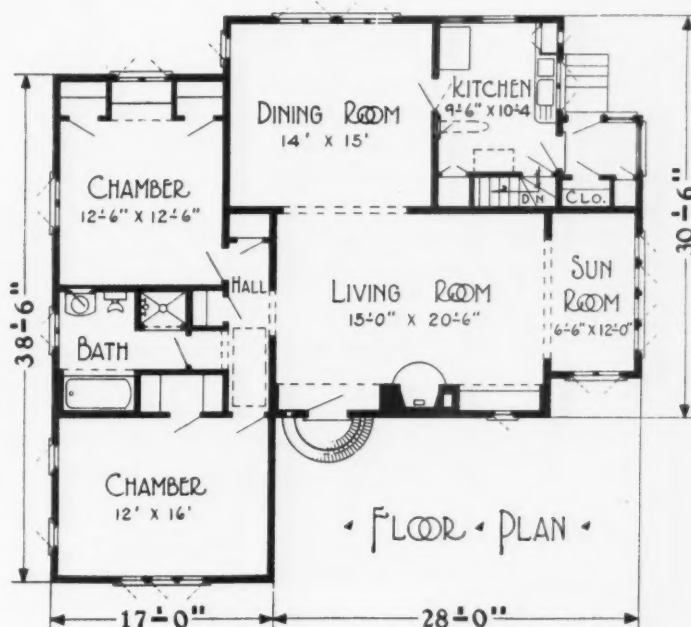
FIVE ROOM STUCCO COTTAGE

*Here Is a Home of the Popular Size in a Style Which
Will Be Appreciated by the Prospective Small Home Owner*

Service to Home Builders

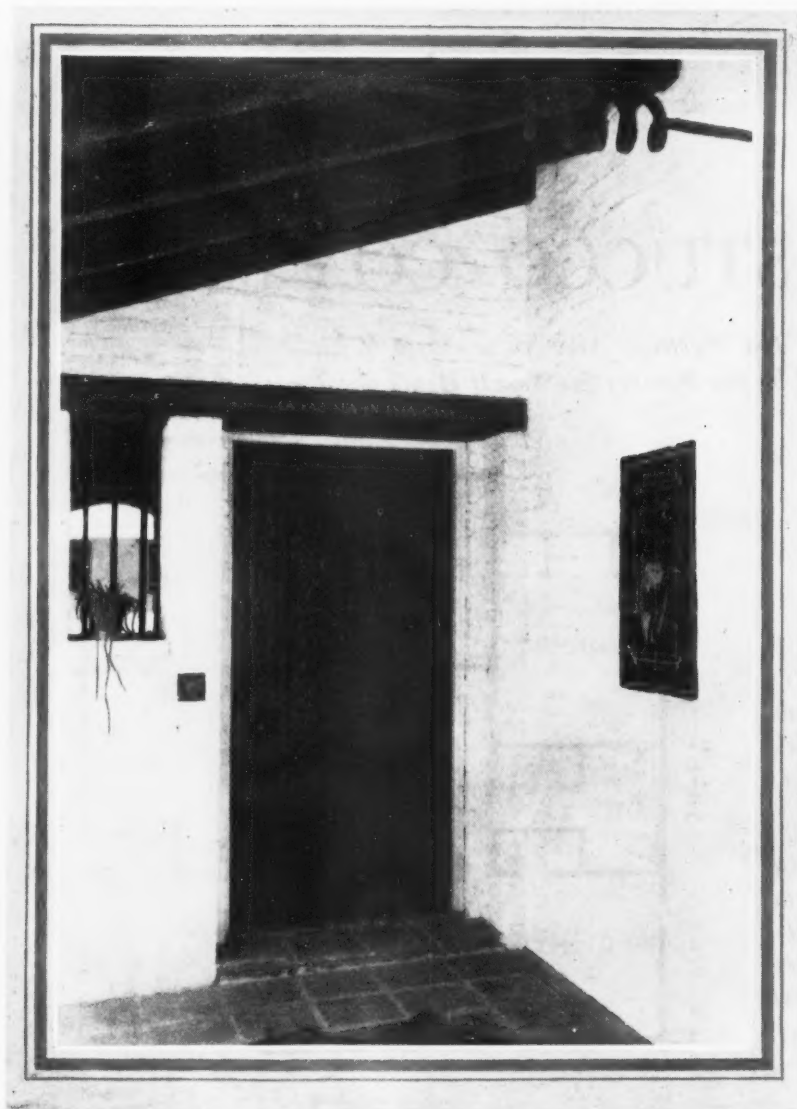
Throughout this magazine we present many building designs. A variety of home plans are included, selected from many parts of the United States and designed by various architects of standing.

The "American Builder" will gladly serve its readers by bringing them together with these architects if any further information or plans are desired for any of these designs. Address the American Builder Home Planning Service, 105 West Adams Street, Chicago, or 30 Church Street, New York City.





The Lure of the Spanish



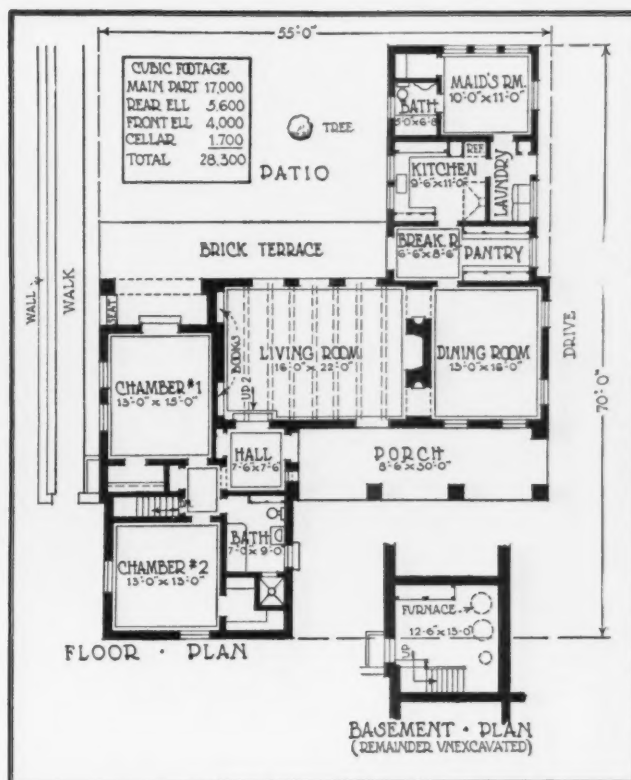
*Found in this
California Mission
Type Bungalow*

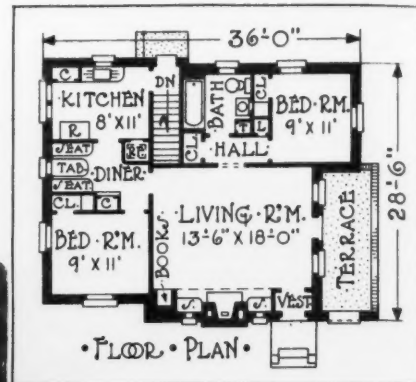
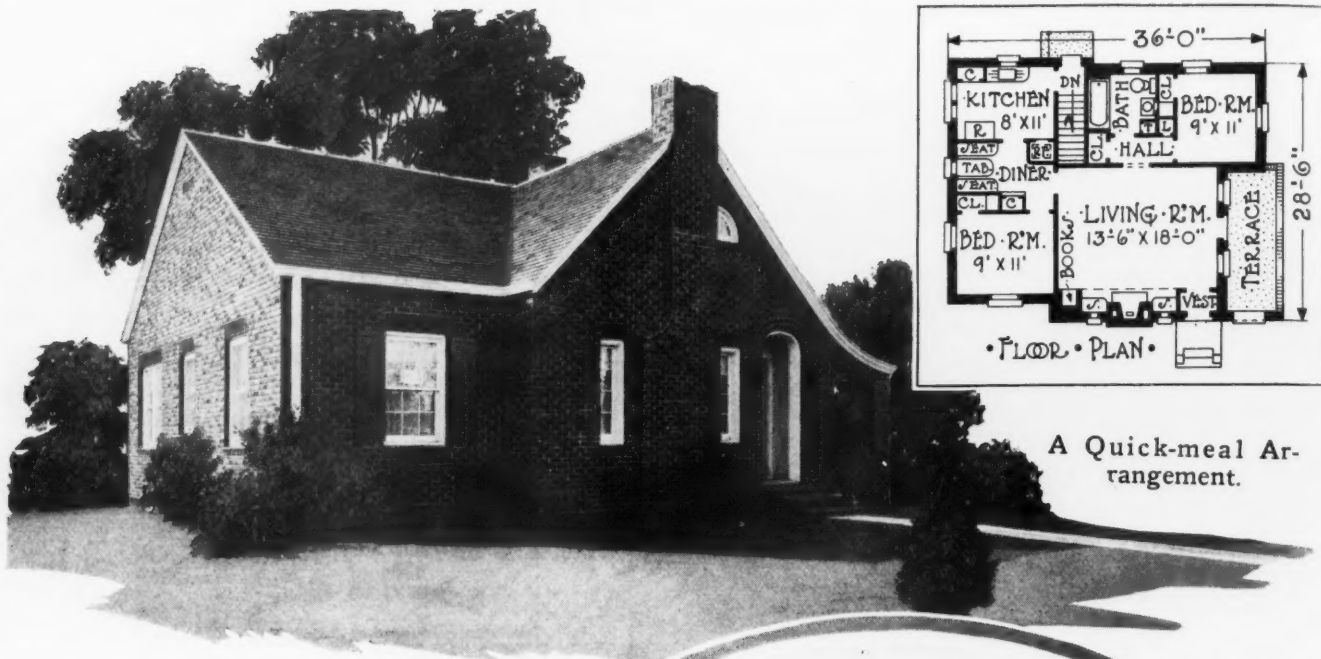
FREDERICK KENNEDY, JR.,
15 SO. EL MOLINO AVE., PASADENA,
ARCHITECT

*Detail of the Entrance Embellished with
Wrought Iron, Rough Hewn Wood and
Colorful Clay Tile. The Motto Over the
Door—"Peace to This Home."*

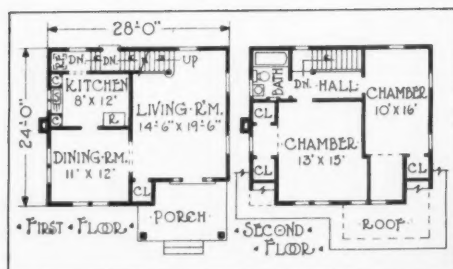
THE floor plan and close-up view of the forecourt reveal further the charm of this California mission type bungalow. The exterior walls are of kiln run red common brick laid in common bond with no effort made to keep the surface true to line, nor yet any attempt at skintling. The Spanish atmosphere is carried out by the coating of white cement which was brushed on after the bungalow was finished.

Something of the cheerful airiness of this home is indicated by the floor plan, which after all tells but half the story. One must see the sunshine, reflected here, fully to appreciate it. Thoroughly Spanish in design and treatment, with the long low lines which are so peculiarly appealing, this little home merits a high rating.

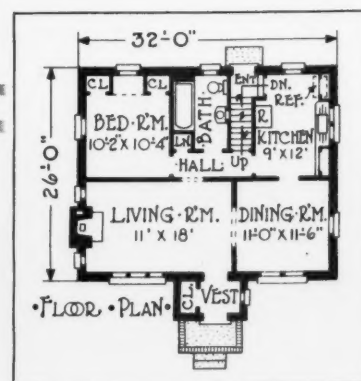




A Quick-meal Arrangement.

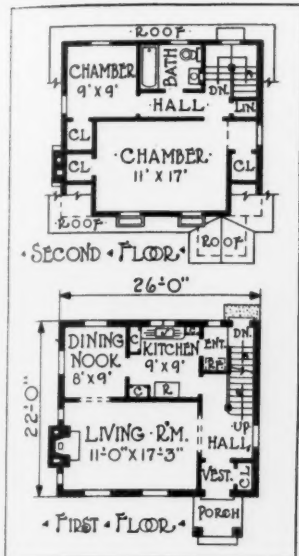


Five Rooms and Bath on 28 Feet.

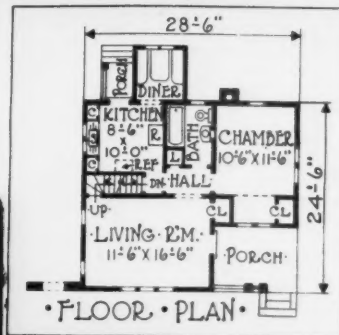


Perfect One-Bedroom Home.

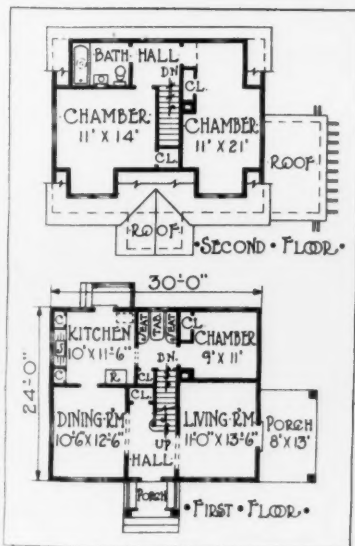
SMALL HOMES PICTORIAL



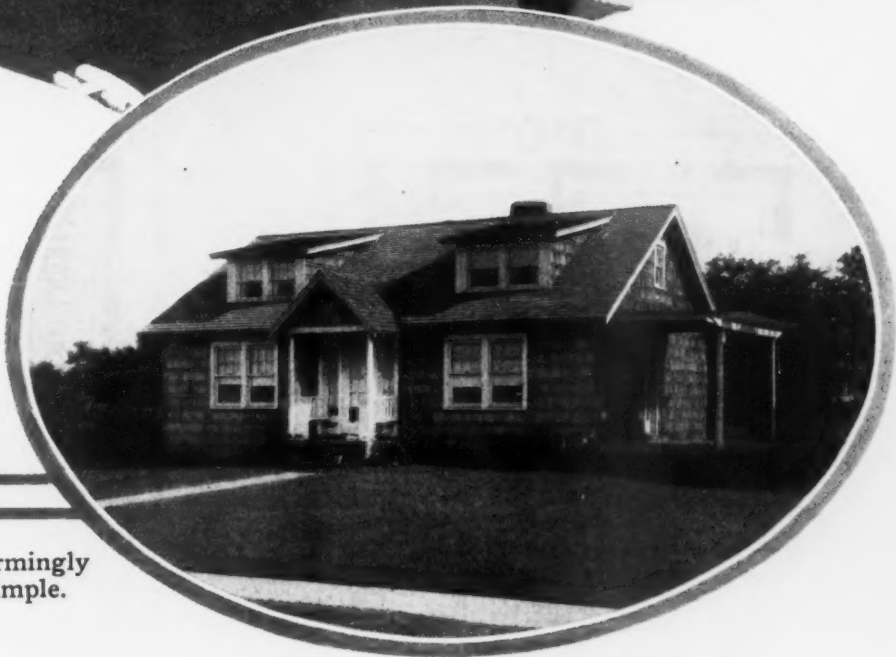
Above and to Right:
A Narrow Lot Dutch
Colonial.



Style
at low
cost.



Charmingly
Simple.



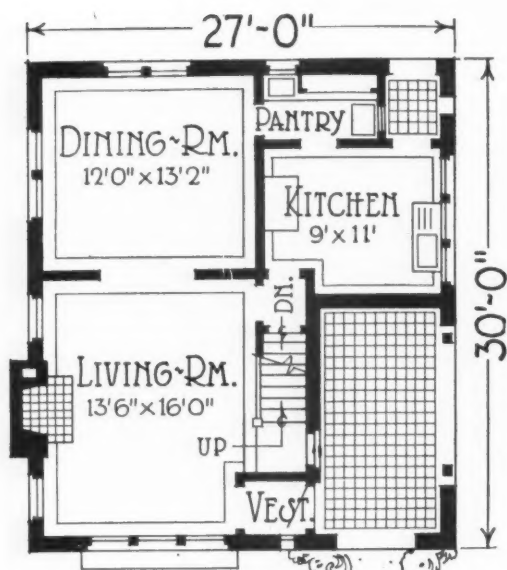
SMALL HOMES PICTORIAL



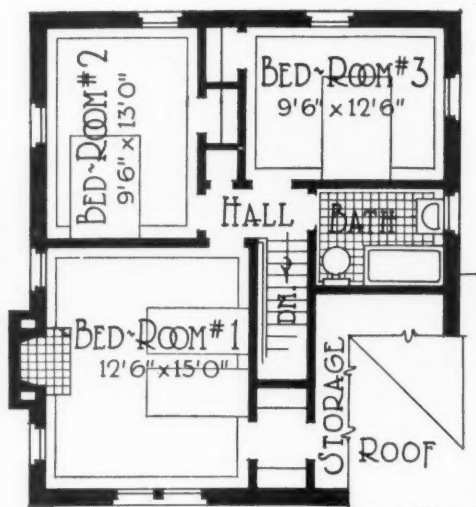
R. C. HUNTER & BRO., Architects, New York City

ATTRACTIVE SIX ROOM HOUSE

*A Conservative Little Home the Good Qualities of Which Will
Endure Long After More Unusual Designs Have Lost Their Appeal*



. FIRST FLOOR PLAN .



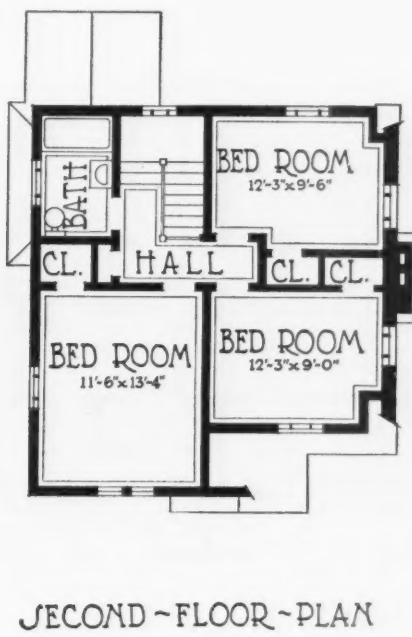
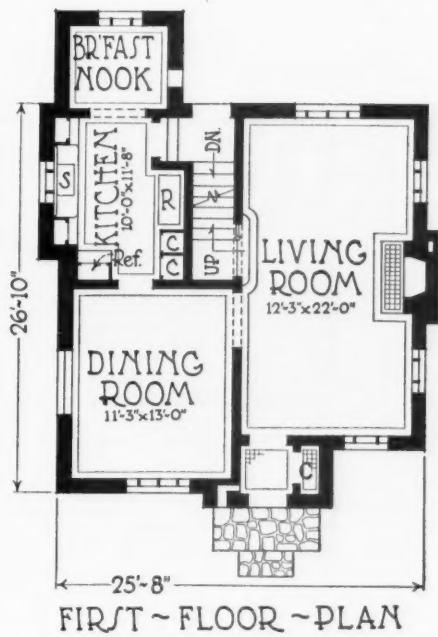
. SECOND FLOOR PLAN .



PALMER PLAN HOMES INC., Architects and Builders, Detroit

HALF-TIMBERED ENGLISH STYLE

*A Handsome Brick House of Enduring Qualities but
one Which Has Been Built for from \$9,300 to \$11,500*

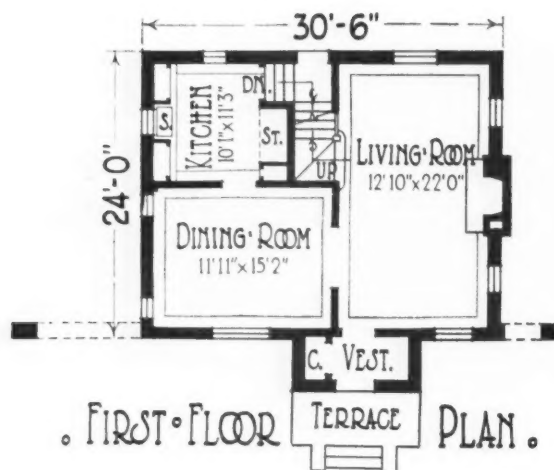




MILLER-STORM CO., Inc. *Architects and Builders* Detroit, Mich.

A STUDY IN BALANCE

Here Arches Have Been Used to Good Purpose to Balance the Rather One-Sided Effect of the Gables and Entrance

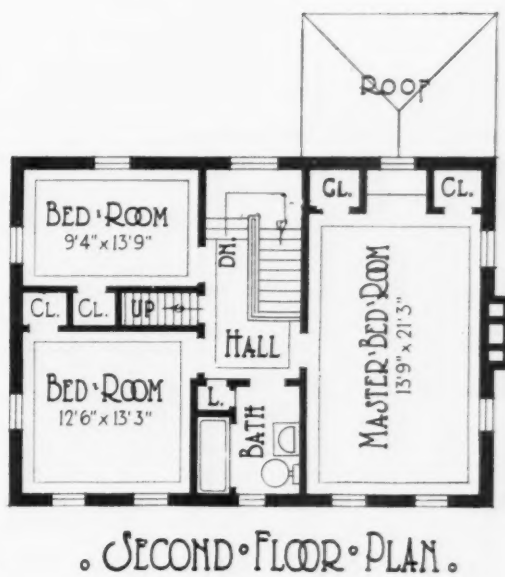
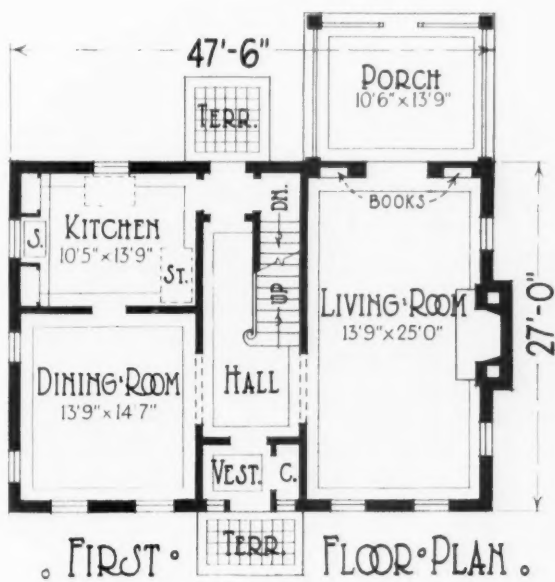




MILLER-STORM CO. Inc., Architects and Builders, Detroit, Mich.

A COLONIAL DESIGN IN BRICK

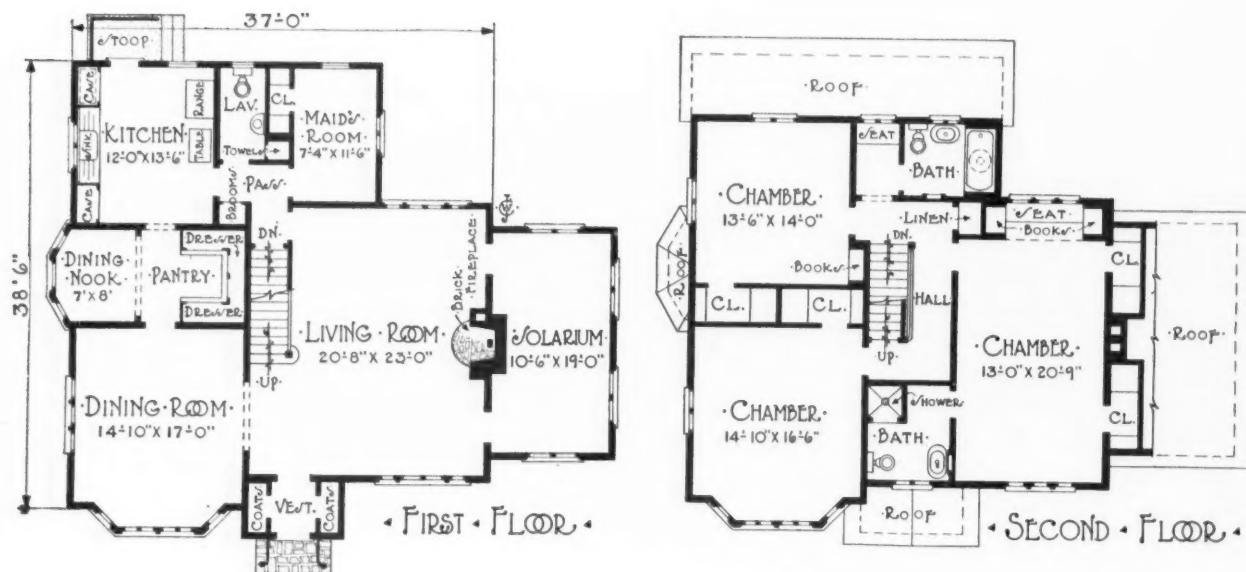
*Pure New England Colonial Architecture Is Always Satisfying
Even to the Most Critical Eye Because of Its Simple Sincerity*





INTERESTING STUCCO WORK

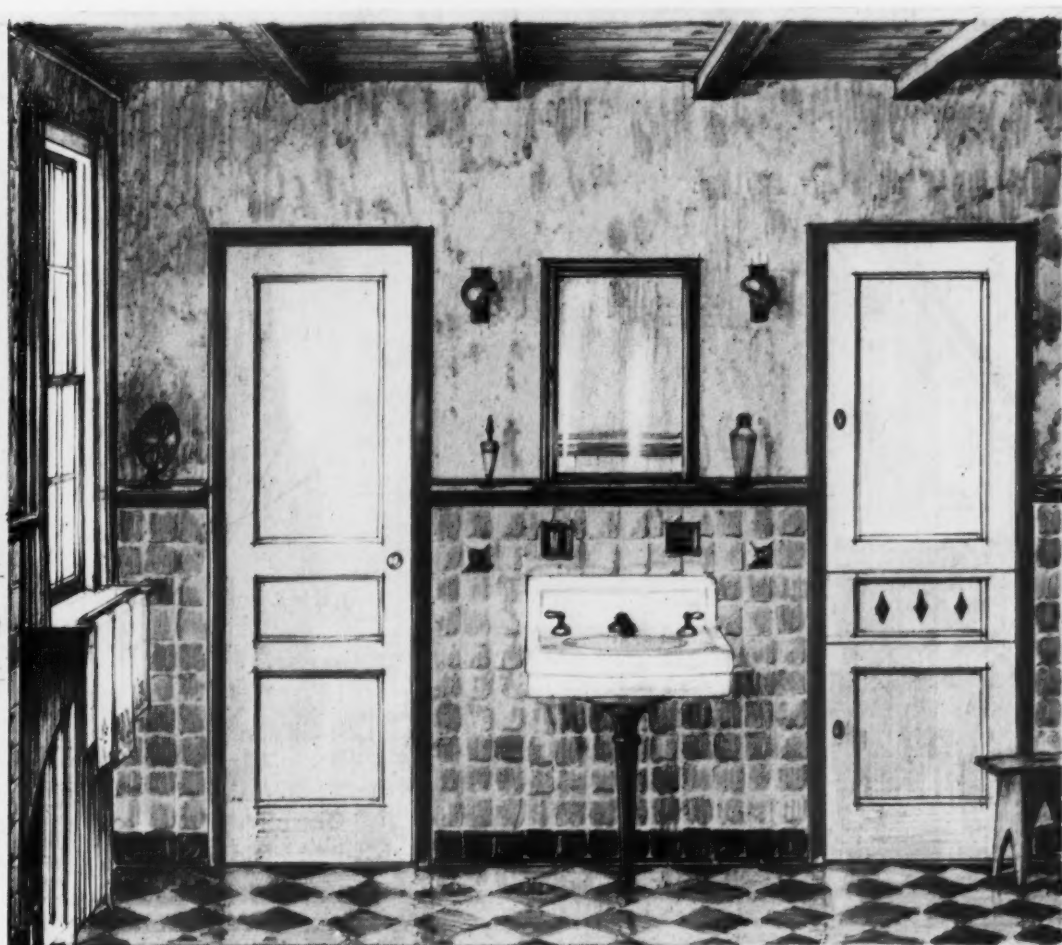
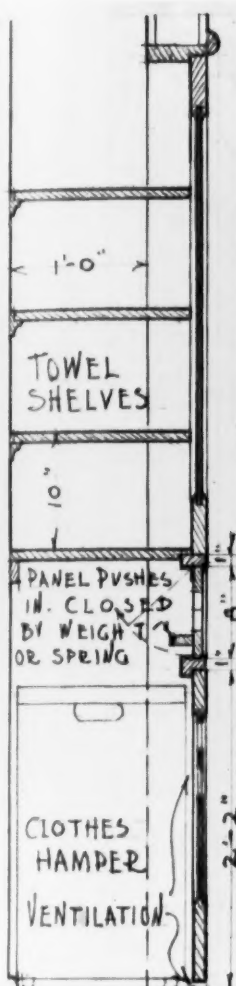
A Stucco Finish that Is Out of the Ordinary Without Being Bizarre, and an Equally Interesting Roof Make this Home Unusual



Details of Bathroom Cases

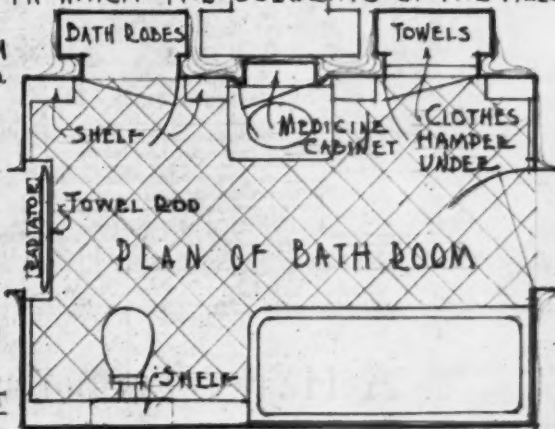
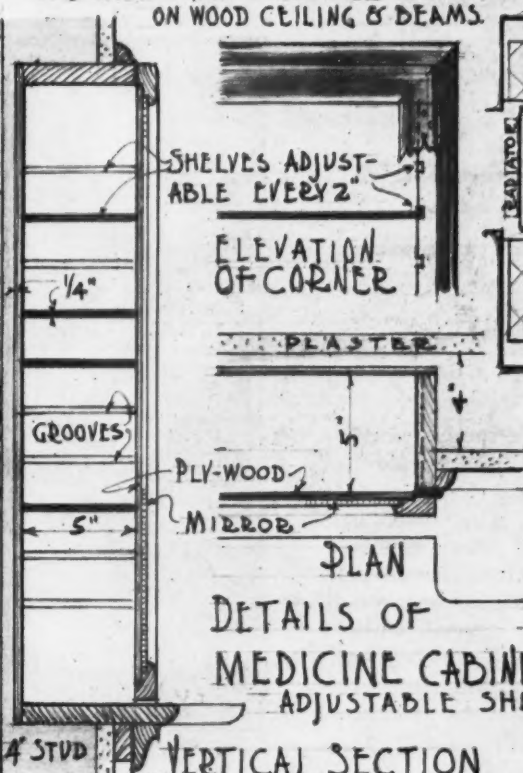
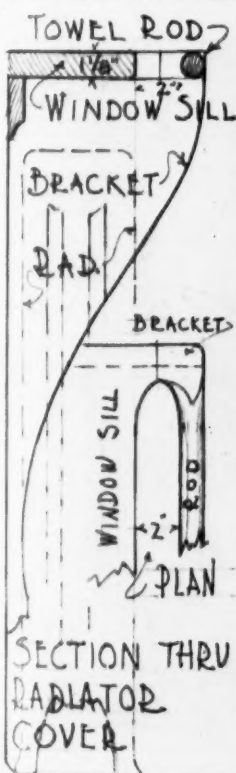
Prepared by Eldred Mowery and Richard G. Kimbell

of The National Lumber Manufacturers' Association



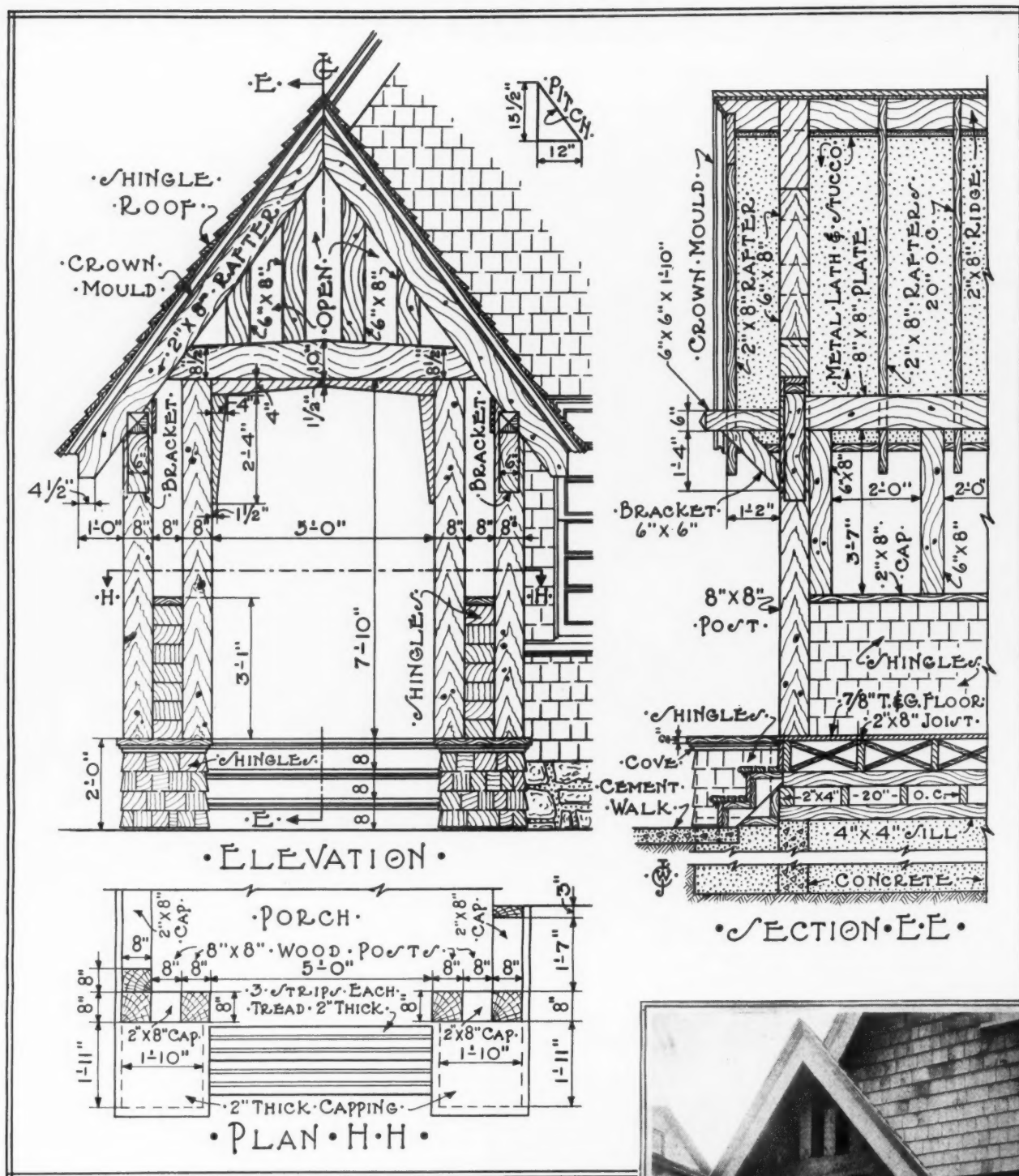
A MODERN BATH ROOM IN WHICH THE COLORING OF THE TILES IS REPEATED IN THE WOOD TRIM AND SHELF AND STENCILED DESIGN ON WOOD CEILING & BEAMS.

TOWEL CLOSET



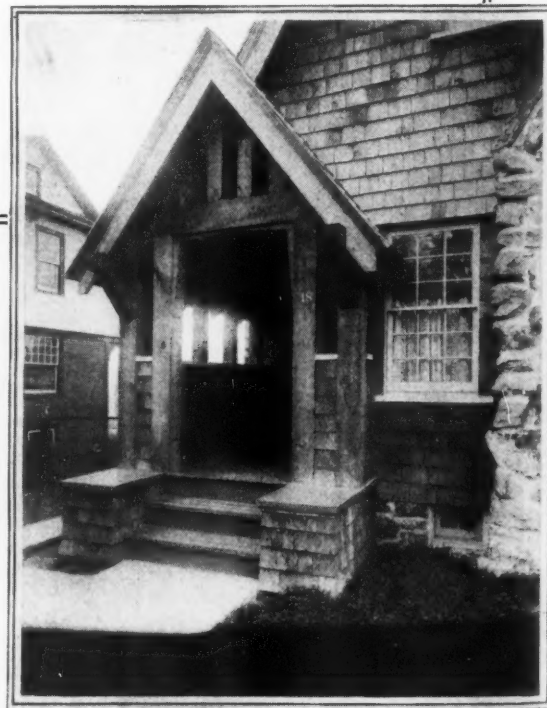
5 1/2" PLATE GLASS

SECTION THRU SHELF TO FORM A FINISH FOR TILE DADO AND PLASTER. IT EXTENDS AROUND BATH ROOM AND WILL BE FOUND TO BE OF GREAT CONVENIENCE. A LOW BENCH, EASY TO CONSTRUCT, IS USEFUL & IN HARMONY.



A Heavy Timbered Porch Entrance

THESE measured drawings of the attractive porch entrance pictured at the right have been prepared by the AMERICAN BUILDER Architectural Staff as a study for the designer of small homes. This detail is especially interesting in its application of heavy timber framing for the doorway. The severe rectangular effect of the opening is nicely relieved by the use of brackets at its head. The whole effect is pleasingly rugged, without being too heavy for the small home of which it is a part. It blends admirably with the shingled exterior and is, on the whole, a suggestive bit of work for the designer who produces homes of real architectural merit.





THE AMERICAN BUILDER ALL-FEATURE HOME

Complete Working Plans

An Eight-Room English Design in Stucco and Stone Presented in One-Eighth-Inch Scale Drawings

TO the designer of homes, a hillside lot is both an opportunity and a problem. When properly designed and adapted to its site a hillside home may be striking, individual, unusually attractive, but properly designing it and adapting it to the site is not so simple as planning a house for the ordinary level lot.

A well planned, hillside home will blend into its site in a most satisfying manner, it will have a solid, permanent appearance. A garage can be built into the basement easily, with convenient access, especially if the downward slope is to the rear. Basement space can be effectively utilized with windows large enough to give it ample light, and ventilation for comfort and health.

The problem lies in avoiding costly construction, avoiding any disconnected appearance resulting from the varying levels, and avoiding disproportionately great height at one point in the elevation.

In the plans of this All-Feature Home, these problems have been

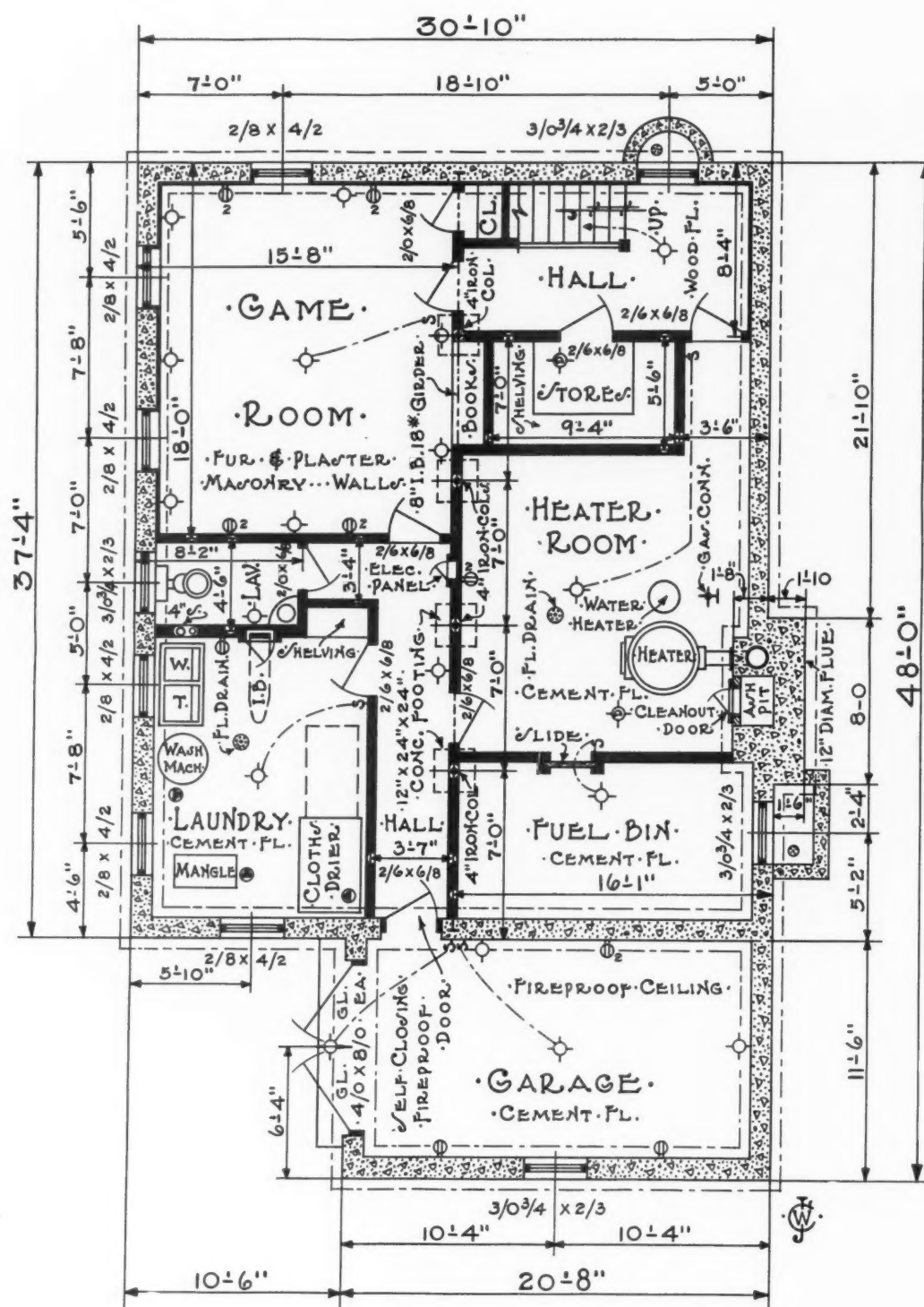
neatly solved. The complete working drawings, reproduced on the next four pages show how this has been done. The result is a particularly attractive home and one which affords a large amount of living comfort and convenience.

The plans show an eight-room house, but there is also a game room in the basement which makes it actually a nine-room house. Each portion of the basement is partitioned so that none of the work-a-day activities need interfere with the use of this room and, if desired, it can be used for any purpose individual tastes may dictate.

One of the outstanding features of this home is the well equipped laundry room in which everything, from built-in tubs to clothes drier, is provided for, simplifying the laundry work and reducing labor. Other rooms, throughout the house, are equally well equipped with the many and varied, modern home specialties.

NEXT MONTH

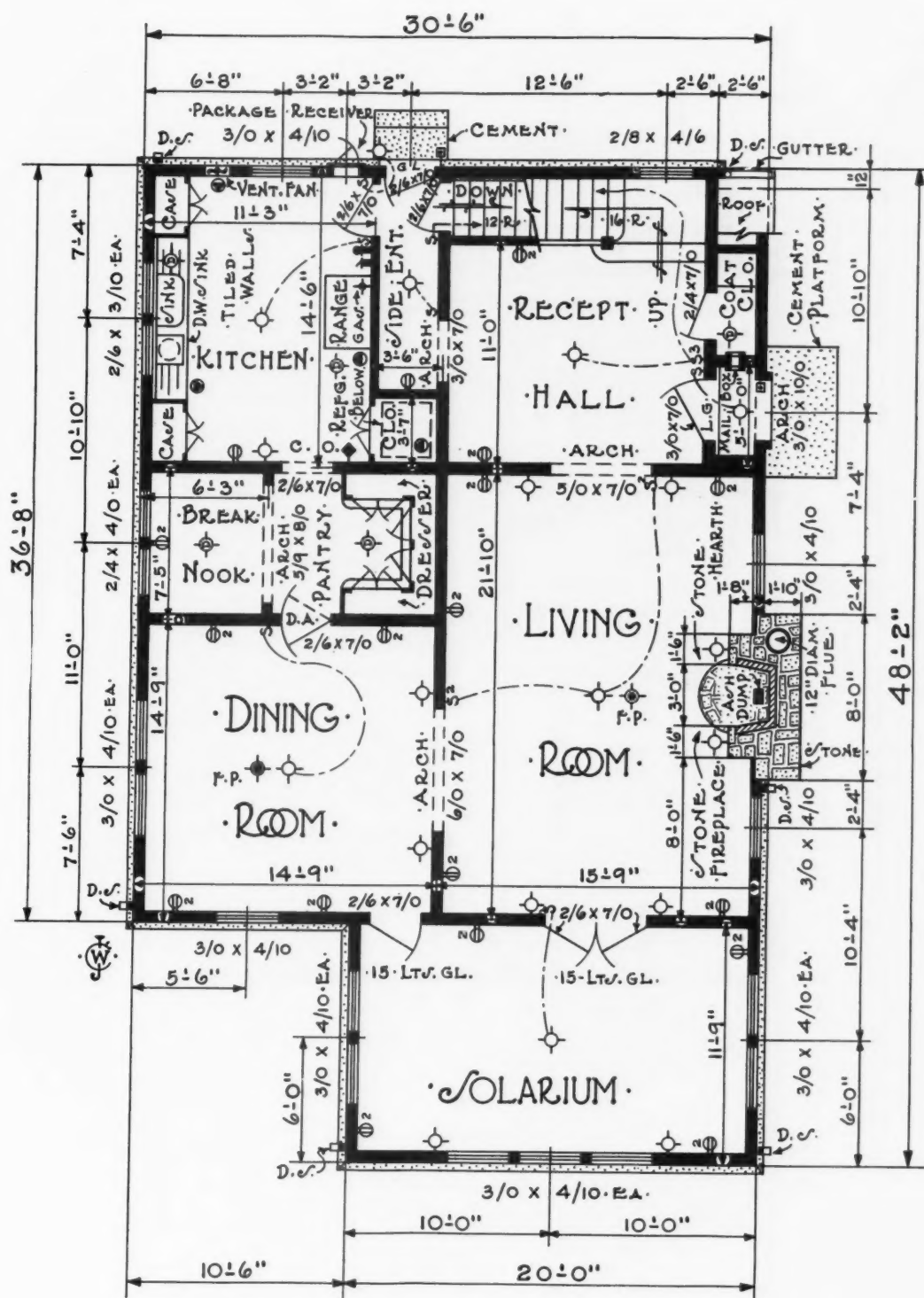
Complete Working Plans of a Nine-Room Half-Timbered English Home in Stucco.



◀ BASEMENT ▶ PLAN ▶

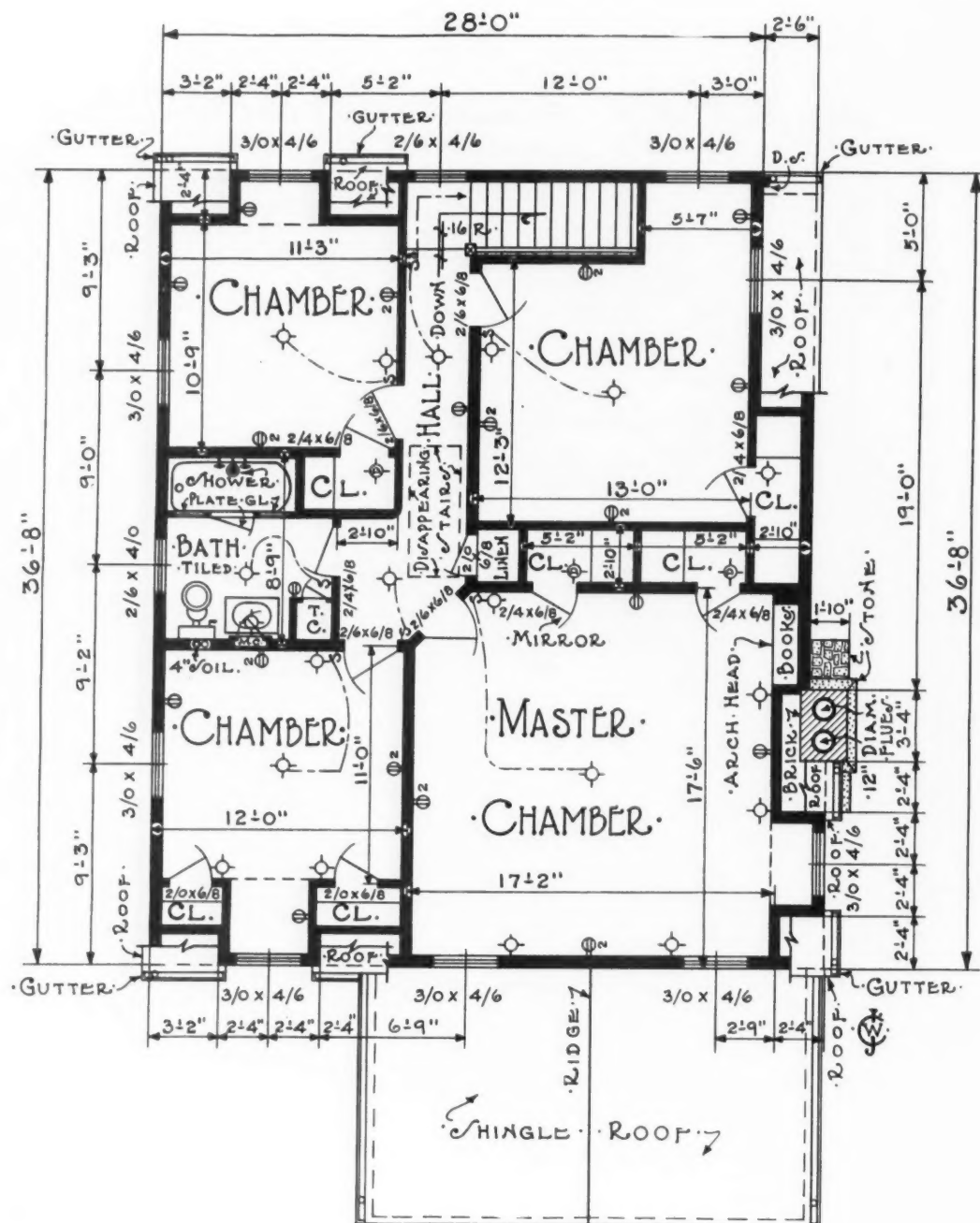
SCALE $\cdot 1/8" = 1'-0"$

The Site of This House Makes Possible Easy Access to the Basement Garage and Ample Light for the Game Room and Laundry.



• FIRST FLOOR PLAN •
• SCALE • 1/8" = 1'-0" •

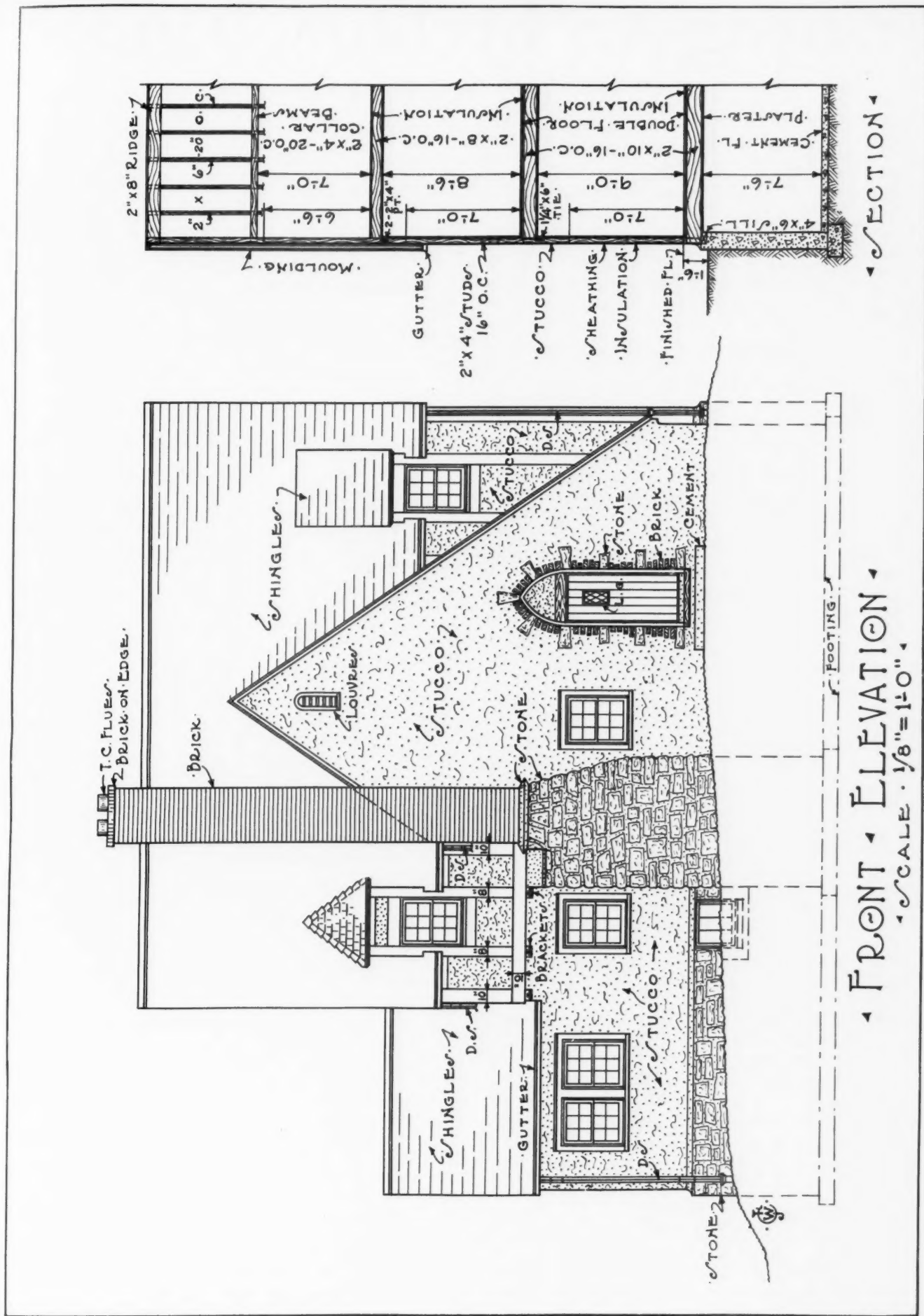
The First Floor of the All-Feature Home Is Ideally Arranged and Every Item of Modern Equipment Is Provided.



• SECOND FLOOR PLAN •

• SCALE $\cdot \frac{1}{8}'' = 1'-0''$ •

Four Bedrooms, with Plenty of Closet Space Are Found on the Second Floor, While a Disappearing Stair Leads to the Attic.



The Exterior of the All-Feature Home Is Finished in Stucco with Stone Effectively Used in the Foundation and Fireplace.

Framing An Eyebrow Window

How to Handle this Tricky Detail in a Workmanlike Way

By JOHN T. NEUFELD

OCCASIONALLY the carpenter has to frame an eyebrow window. Sometimes they are detailed in the drawings, at other times the carpenter has to figure out his own framing. Very often it is only necessary to frame the eyebrow window over the sheathing of the main roof, but once in a while the drawings call for a frame where the plaster ceiling follows the shape of the roof. The sketches herewith show such a frame.

First of all the opening in the roof is framed. Headers "B" and "C" are put in, using 2x6 pieces and beveling them to fit the slope of the roof.

The radius for the piece "A" must be obtained from the blueprint. This piece can be cut from a 2x6 or from two 1x6 pieces, joining where necessary. Rafters 1, 2, 3 and 4 are made from one-inch boards and are placed close together. In this case they are placed 8 inches on centers. This gives a better chance to make an even curve with the roof boards. The process of striking the curve is shown in Figures 2 and 3.

The point "E" where the curve starts and the point "F" where the curve ends are established from the plans. A straight line is drawn between these two points. From the point "E" a line is drawn at right angles to the main roof line. From the center of the line between

"E" and "F" another line is drawn at right angles to the line. These two lines meet at the point "O," and this point is used as the radius for the curve of the rafter No. 1. Note, however, that a new radius point must be found for each rafter.

Roof boards will have to be made of narrow boards and sometimes cut in short lengths. The ceiling can be made with metal lath and plaster.

Building mechanics should get into the habit of making sketches for their work before starting to "cut and fit."



For Dry Basements

Modern Methods Insure Dry and Livable Basements Under All Conditions.

By WYATT BRUMMITT

IT is not only possible to have a dry, healthful basement under all ground and weather conditions but, builders agree, no other kind of basement need be tolerated.

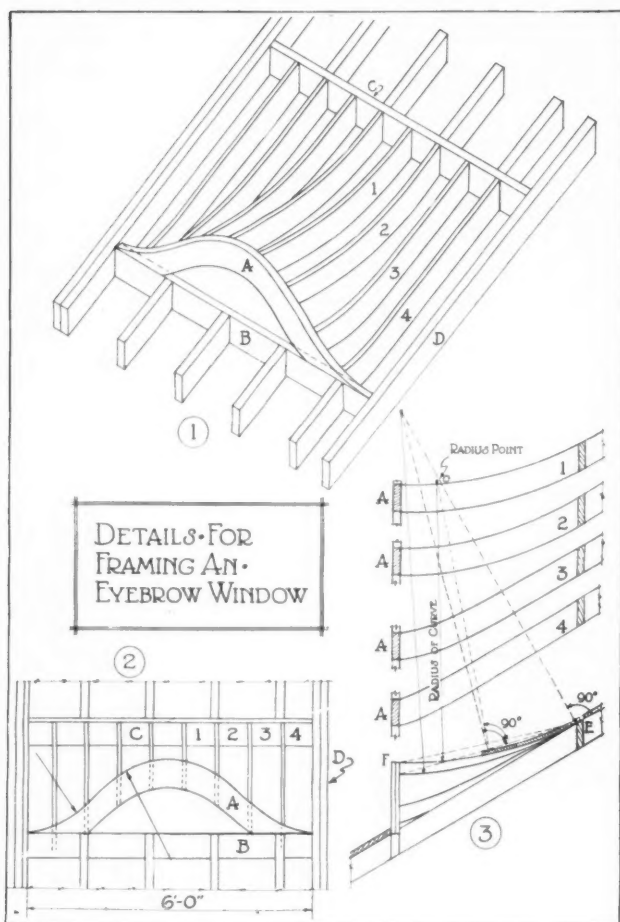
There is more or less moisture in the ground at all times. In some localities, where the natural drainage is poor, the amount of moisture may become so great that there is actually a "head" of water pressing against the basement walls and floor. But, whatever the conditions, it has been found that a concrete wall, constructed according to well established principles, is a water-tight wall.

There are two types of concrete walls—monolithic and masonry. The first, as its name implies, is a solid unit of concrete, cast between forms. The second is built up with units of concrete masonry laid in cement mortar. Naturally, the monolithic wall lends itself well to massive work, but even in relatively thin sections it makes a strong, dense barrier against moisture, termites (those destructive, boring ants), rodents and all the other agents of decay, disease and discomfort. Under ordinary circumstances, such a wall requires no extra treatment to insure water-tightness. However, where poor drainage indicates the possibility of external water pressure, an external coat of cement plaster, plus provision for artificial drainage, is advisable.

A wall built of concrete masonry units is an effective, water-tight wall, providing ordinary care is taken to insure strong, tight mortar joints, using cement mortar. Additional protective measures for a masonry wall depend on the type of masonry used. A coating of plaster is seldom required when dense, strong concrete masonry units are used.

It is, of course, important that the basement floor should be just as impervious to moisture as the walls; for external water pressure acts simultaneously on both floor and walls. A standard five or six-inch concrete floor, equipped with proper backwater or seal trap drains, can be relied on to keep out ground water, providing that the joint between floor and walls has been properly designed and filled with pitch.

A dry basement adds much useful space to the house, space for recreation rooms, work rooms or for the safe storage of food and goods.



How to Lay Out and Frame an Eyebrow Roof Dormer.

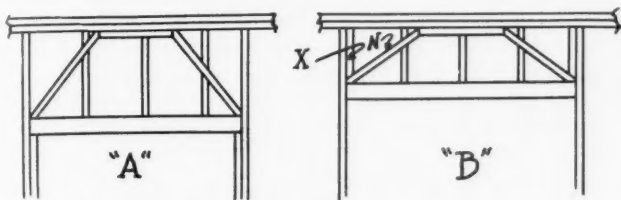
FROM AN ARCHITECT'S NOTE BOOK

Sketches that Solve Puzzling Points

By JAMES T. NARBETT,
Architect, A. I. A.

Simple Truss Framing

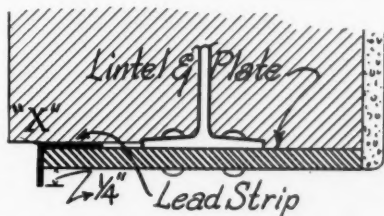
OVER a period of a number of years of designing and supervising the construction of buildings I am surprised at the number of contractors and superintendents who are lacking in the knowledge of the simpler forms of truss design



as applied to small openings, hardly ever do I find one constructed so as to give the best efficiency.

I herewith submit two plates, A and B. Plate A for openings having sufficient space overhead to allow proper angle. Plate B for openings that crowd the top plate; necessarily the truss is flat and provision must be made to prevent slip of the chord member N. All should be well fitted, tightly driven in and well spiked.

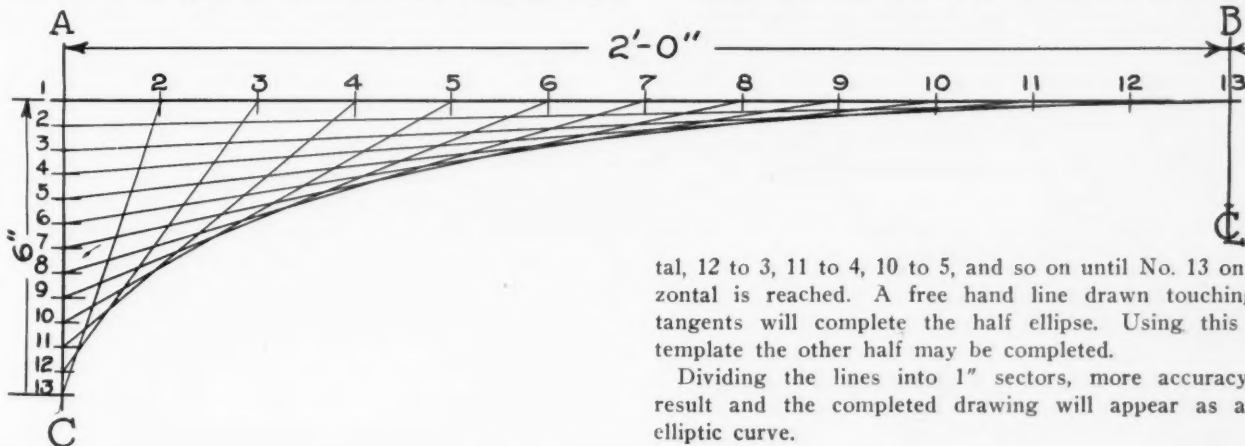
Cripple X tightly fitted prevents toe from slipping when the load is superimposed above.



A Leaky Fault in Construction

ONE of the most frequent causes for leaks in masonry construction results from water following under the steel plate under the lintel and then finding its way through over top of sash bar to inner side of sash. The detail above overcomes this difficulty and is easily and cheaply applied.

At point X lay on a 2" strip of lead bent so as to allow 1/4" of lead below the plate as shown in detail. The bricklayer



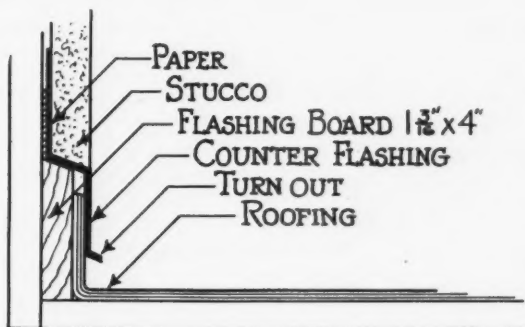
then proceeds with his work and worries from this source are at an end as far as leaks are concerned.

After the masonry has been completed and cleaned down, the edges of the lead should be trimmed off and straightened.



Correcting an Unsightly Fault

HOW often have you noticed the ragged edge of stucco plaster where wall comes in contact with a lower section of roof flashing against same? To overcome this fault I would suggest the following detail of construction:



In all cases, whether the roof be flat with felt, asphalt and gravel as the medium; shingles, slate or tile or other materials, I would suggest using the flashing board and the counter-flashing. It will result in a far neater job.



Detailing the True Ellipse

IN your May issue: to the question, "How can I lay out an ellipse arched opening with a string?" your answer was clear and concise, but there is so much guesswork in an ellipse so detailed that I am offering a substitute that is both simple and accurate.

Lay out one-half the opening A to B with a line drawn between the two; let us assume the opening to be 4'-0" in width.

Divide A to B into 2" sectors and likewise A to C, making 12 sections in all both ways and number them if you desire. Next draw lines from No. 13 on vertical to No. 2 on horizon-

tal, 12 to 3, 11 to 4, 10 to 5, and so on until No. 13 on horizontal is reached. A free hand line drawn touching the tangents will complete the half ellipse. Using this as a template the other half may be completed.

Dividing the lines into 1" sectors, more accuracy will result and the completed drawing will appear as a true elliptic curve.

How Dan Does It

A Department for Passing "Life Savers"
Along to Other Builders

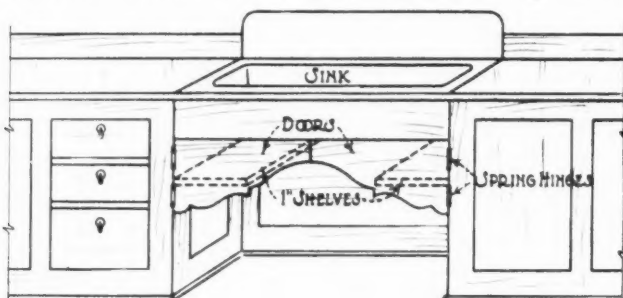
\$2 for an Idea

Dan is an ingenious cuss. Nothing ever stumps him. He always knows the way out when he runs into a tough problem out on the job or in the office. Dan is editor of this Department and will pay \$2.00 each for every good idea he can use here to show and tell other builders "how to do it." Send him a rough sketch and a short description of what the tough job was and how you handled it.

Address Dan-Do-It, care of American Builder, 105 W. Adams St., Chicago, Ill.

Handy Kitchen Shelves

IN the modern small kitchen, it is necessary to utilize every inch of space for shelves and cupboard and equipment. At the same time the demand is that the kitchen shall be made as attractive as possible and everything unsightly shall be hidden. There is room, underneath the average kitchen



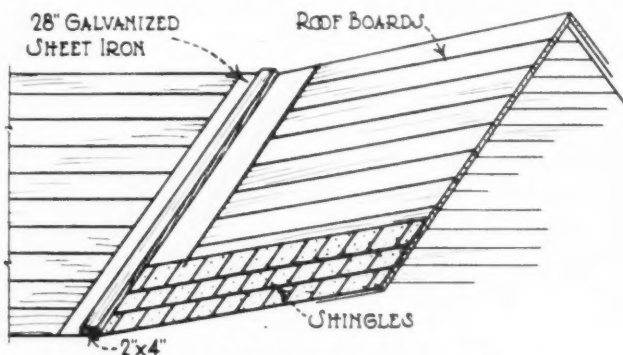
Two Shelves Fitted Under the Sink and Hidden by Swinging Doors Are Handy and Help Keep the Kitchen Neat.

sink for extra shelves to hold soap, dish rags, cleaning powders and similar supplies. One shelf at each side will be found very useful to the housewife and these shelves can be completely hidden by a couple of doors with spring hinges, as shown in the sketch. The doors are decorated to harmonize with the kitchen decoration and add to the appearance of the room. With spring hinges the doors will always stay closed, and will hide the drain pipes as well as the shelves.

CLYDE E. SIMMONS, 2414 San Diego St., El Paso, Texas.

To Make Tight Valleys

SOMETIMES find that formed valleys are not wide enough for a valley in a roof which is not very steep. In such a case, to insure a job that will not leak, I use 28-inch galvanized sheet iron instead of the regular valley tin. When



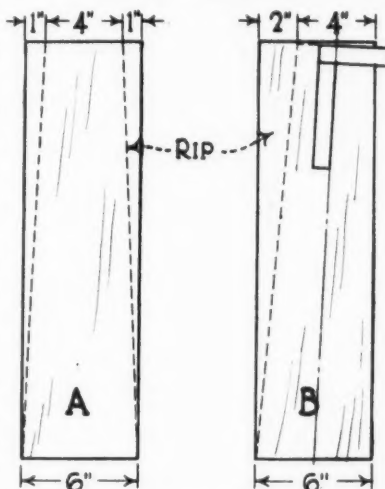
For a Roof with Little Pitch 28-Inch Galvanized Sheet Iron in Place of the Usual Formed Valley Helps Prevent Leaks.

laying the shingles I place a two by four in the center of the valley to get the shingles uniform and, after the shingles are laid I remove the two by four. If asphalt shingles or roll roofing are to be used, I apply a coat of asphalt roof coating over the galvanized valley which helps to prevent leaking.

T. R. HUDSON, Sontag Lumber Co., Wilder, Minn.

Making Tapered Posts

WHEN laying out material for tapered posts, most workmen square all their stock on the ends and then lay off the amount of taper on each side of the board at the top and rip each side. This is a tedious job which can be made much easier by using the method illustrated in the sketch.



This Method of Cutting Tapered Columns Saves Half of the Usual Sawing.

Suppose we have a post measuring six inches at the bottom and four inches at the top. This requires a 1-inch taper on each side, as in the drawing "A." My method is to lay off two inches on one side at the top and draw a line to the bottom corner, as in drawing "B." After ripping down this line

I have a piece six inches at the bottom and four inches at the top, but the ends are not square.

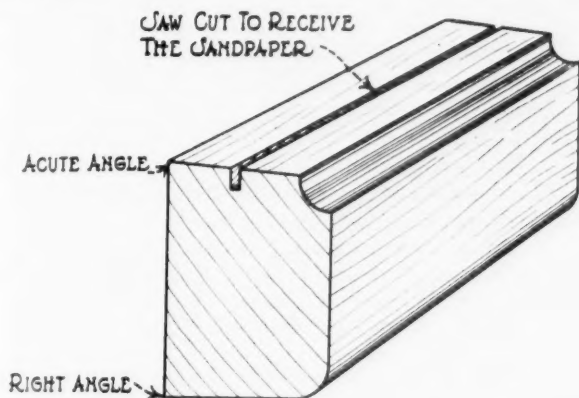
To square the ends, obtain the center points on the top and bottom edges and draw a line between them. Square the ends from this line. This method saves half the ripping, which means a saving of time and money.

ALLEN HARRIS, R. F. D. No. 2, Jackson, Mich.

"Principles of Real Estate Practice" is the title of a book by Roger D. Washburn, the College of Business Administration, Boston University. This is written in a readable, non-academic style, of benefit to real estate dealers and those interested in the business, as well as to students of real estate. The book is divided into four parts, discussing the essentials of the real estate business; the various classes of property; the problems of regulating, zoning, taxing, and appraising real estate, and the essential legal considerations. Published by McGraw-Hill Book Co., New York City. Price, \$5.00.

Convenient Sanding Block

THE sanding of mouldings, convex or concave surfaces and acute angles, is made much easier by providing a soft wood block like the one shown in the sketch. The block can, of course, be made any convenient size, but one a little longer than the width of a sheet of sandpaper is about right.



A Block Like This Makes It Easy to Sandpaper the Odd Shapes and Corners That Are Hard to Get at.

The block is smaller at one end than at the other. One edge is cut at a right angle, another at an acute angle, the third is rounded to fit into concave surfaces and the fourth is cut out to fit over convex surfaces. A saw cut in made along one side as indicated to receive the sandpaper.

Fold the edges of the sandpaper to fit into the slot and to lie fairly snug around the block toward the small end. Then slide the paper toward the large end and it will tighten. I use a half sheet of sandpaper at a time and make the block a trifle longer than the width of the sandpaper.

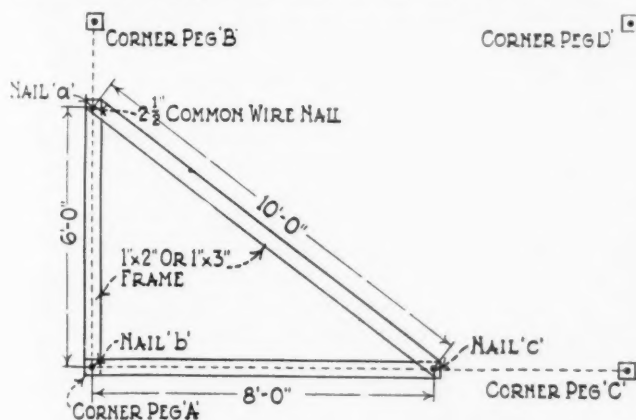
W. G. GRUBB, 1118 8th St., Woodward, Okla.

Placing and Leveling Corner Pegs

TO place corner pegs and level in one operation, place the frame over the corner peg "A," as shown in the sketch, with a nail "a" driven far enough through the frame to just enter the peg. Place the straight edge on the heads of nails "a" and "b," and nails "b" and "c," and level up by means of shims.

Next sight along the heads of the nails "a" and "b" to locate the corner peg "B" and sight along the nails "a" and "c" to locate the corner peg "C." In this way you get these corner pegs level at the same time that you place them square.

Locate corner peg "D" by measuring with the tape from pegs "B" and "C." Check all pegs from corner to corner to assure accuracy. The nails in the corners of the frame



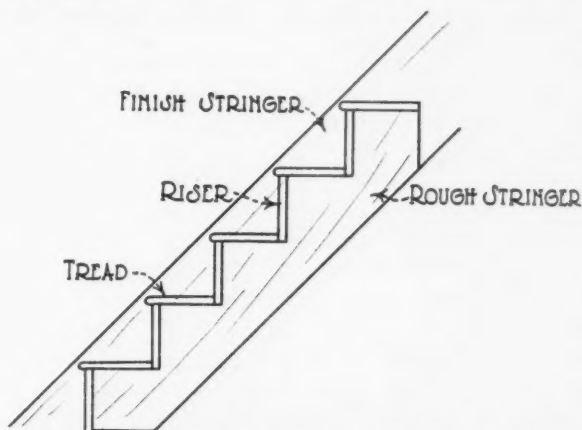
Corner Pegs Can Be Placed and Levelled in One Operation by Using This Method.

should be driven in the same distance to give an accurate level.

BERT E. PARKER, Box 838 Weyburn, Sask.

Inexpensive Stair Construction

HERE is an idea for putting in a stairway between two plastered walls, in inexpensive construction, which saves labor. First cut the rough stringer and the finish stringer. Put the rough stringer in place and cut the risers to fit between the plastered walls. Cut the treads the same length as the risers.



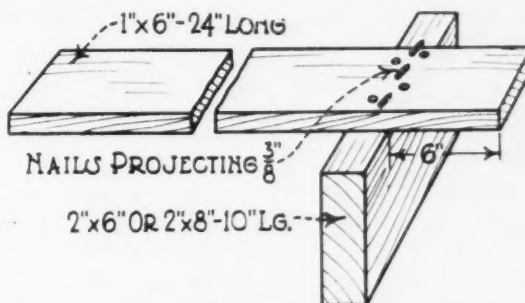
A Quick and Easy Method of Building a Stair Between Two Plastered Walls in Inexpensive Construction.

Next lay the treads on the rough stringers, place a piece of wood the same thickness as the finish stringer on each tread, holding against the wall, and mark each tread. All you have to do now is to put the finish stringer in place, cut the treads as marked and place them. You do not have to use a bevel square or sticks to get the length. If you make the treads carefully you will not even have to use a plane. I can put in a stair of this kind in about an hour and a half.

J. E. PILLAR, Scotland, S. Dak.

A Handy Shingle Holder

WHEN applying asphalt shingles a shingle holder, of the type shown in the sketch, will save much time and trouble. It takes only a few minutes to make and can be



The Projecting Nails Dig into the Roof Sheathing Just Enough to Hold Securely.

made from scrap material. The sketch shows quite plainly how this simple device is made.

Before nailing the block onto the board, drive three or four nails into the board so that the block will be over them when it is attached. These nails should project $\frac{3}{8}$ of an inch on the bottom of the board. If large nails are used drive them that far and then bend over. Next nail the block on securely.

When this is laid on the roof the projecting nail points catch in the sheathing. The more shingles piled onto the holder the tighter it sticks. It is easy to push up the roof, however, as lifting the lower end slightly releases it.

ELDRID SMITH, Modena, Ulster County, N. Y.

Law for the Builder

Conducted by M. L. Hayward

The Non-Competing Agreement

"I'LL sell you my building business for \$45,000," A offered.

"And I'll do better than that. I'll give you \$50,000 if you'll agree not to engage in the same business in this city in competition with me," B counters. A accepts this proposition, and the transfer is completed.

Is such an agreement not to compete binding, or is it void as being in restraint of trade?

On this point the weight of authority in the American courts is that such an agreement is valid and enforceable, as long as it is reasonable.

In an Ohio case, however, the evidence showed that A sold a building business to B, the agreement was put in writing, signed by the parties, and the sale practically completed.

"I never thought of it at the time, but I should have taken an agreement from you not to compete with me," B suggested a few days later.

"I'll not stick on that, and I'll agree right now not to carry on any building business in competition with you," A agreed, and the Iowa courts were called upon to decide whether the later agreement was binding.

The decision (reported in 75 Iowa, 173) was that the agreement was not binding, as the sale had been completed and A received no benefit or "consideration" sufficient to make the agreement an enforceable one.



"Well and Truly Performed"

"THE payments herein specified shall not be due or payable unless and until the architect has given a certificate that the said contract has been well and truly performed," an Illinois contract stated. The architect gave the builder a certificate that he was entitled to the payment of a certain amount, "by the terms of the contract."

"This is not a certificate that the contract has been well and truly performed," the owner pointed out.

"It states that I'm entitled to the money, 'by the terms of the contract,' so that must mean that the work has been done according to the contract," the builder maintained.

The Illinois courts, however, ruled that the certificate was insufficient in the case of *Barey vs. Glis*, 11 N. E., 206.



Who Pays the Taxes?

"TO have and to hold unto the said builder and his assigns for and during the term of five years from the date hereof, yielding and paying therefor in each and every month, the monthly rental of \$125," the builder's lease stated.

Six months later the city presented a tax bill on the building in question amounting to \$583.74.

"Present it to the builder, he's the proper party to pay," the landlord advised.

Fifteen minutes later the builder telephoned.

"What's the idea of sending that tax bill to me?" the builder demanded.

"You're the lessee—you have the entire control and possession of the building for five years, and it's your duty to pay the taxes," the landlord declared.

"I'm the occupant, but you're the owner, you can pay your taxes, or let the city sell the building," the builder retorted—and rang off.

And the builder was quite safe in "standing pat", as, if there is no agreement to the contrary, it is the duty of the landlord to pay state, municipal, and county taxes and assessments imposed by law upon the leased premises, a rule which has been approved by the Alabama, Illinois, Iowa, Louisiana, New York, Pennsylvania, Tennessee and Wisconsin courts.



An Unenforceable Agreement

THE State had advertised for bids for the contract of a certain public work, three builders, A, B and C, who were competing bidders, met at the Commercial Club.

"I'm going to put in a bid for \$100,000 and I don't care who knows it," A announced.

"And my bid'll be under that," B stated.

"And mine'll be under yours again," from C.

"There's no need of cutting each other's throats—let's all bid right around \$100,000, and the three of us divide the profits," C suggested, and the others agreed, the arrangement was carried out, C got the contract, and A and B claimed their shares of the resulting profit.

"Nothing doing," C told them, the disappointed bidders sued in the Federal Courts, and lost, the court applying the well-established principle that an agreement not to compete on a public contract is against public policy and unenforceable.

In a Michigan decision (reported in 97 Mich., 172) the State called for bids on a public building, to be paid for in public land, A agreed that if B would not bid against him, A would give B a percentage of the land received under the contract, and the Michigan Courts ruled that B could not enforce the agreement against A.



"Within 60 Days Hereafter"

A NEW ORLEANS contractor signed a contract whereby he agreed to do certain work "within 60 days hereafter," 10 days later the contractor began work, and, 50 days later, the owner demanded the completion of the work.

"The 60 days date from the signing of the contract," the owner claimed.

"The contract really means from the time I started work, and I've still got 10 days to go," the contractor argued.

This point was settled in the case of *Carland vs. New Orleans*, 13 La. Ann., 33, where the court ruled against the contractor.



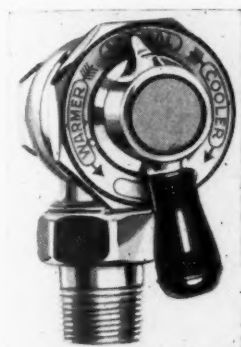
"Harmony in Home Design" is a new booklet published by The Philip Carey Company, Lockland, Cincinnati, Ohio, containing much interesting information and "Facts about leading architectural types that every home builder should know." It is beautifully illustrated in colors.

What's New in Equipment for Buildings

For further information in regard to any item described in the "What's New" Departments address, American Builder Information Exchange, 105 W. Adams St., Chicago

Variable Temperature Control

TEMPERATURE control of buildings by zones is an important step in the development of simplification in heating. It centralizes the control of heat supply and avoids waste of overheating and excessive window opening.



Individual Control of Radiators Is Possible with This Valve.

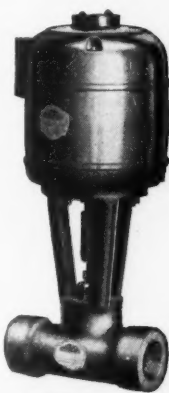
Even though temperatures are kept at a standard degree, individual variations may be desired because of conditions of occupancy, compensation for variations in building construction, untenanted portions of buildings where it is good management to reduce the quantity of heat supplied and save fuel.

The valve illustrated permits zone temperature controlled systems to serve such varying conditions and permits variations of heating heat supply to certain predetermined radiators. It also permits the flushing of the system as may be desired by the operator. With this valve, the heat emission of the radiator is varied by turning the valve handle and varying the size of the valve orifice.



Circulator for Hot Water Heat

THE electric circulator shown here is a new heating equipment device which is especially recommended for heating jobs where the circulation is draggy and the heat spotty. It has been developed by a company which has long been prominent in the hot water heating field. This device consists of a centrifugal pump of high efficiency particularly designed for circulating water in a hot water heating system or domestic water supply system.



A Circulator Assures Circulation in Hot Water Heating.

It is quite simple in construction and is easy to install. It is entirely self contained and is shipped as a unit ready for installation. The motor is a specially made type, operated on alternating current, and can be plugged into any light or power socket without special wiring. It is moisture-proof and is compact and rugged in design. It will not cause radio interference.

The circulator has no restricted openings and needs no mechanical or spring operated valves within the pump. When the system is operated under thermal circulation and the motor is running the water flows through the by-pass and past the impeller with absolute freedom as there is a greater area for the water to pass through than the area of the pipe to which it is attached.

This circulator, even when used on an ordinary gravity job and not with this company's complete system, circulates

the water through the pipes as it should be and assures hot radiators at the farthest point from the boiler. Actual tests show that, in many cases, the temperature is reduced only 10 per cent from the time the water leaves the boiler until its return, it is stated. This assures fuel economy.



More Heat from the Fireplace

THE fireplace shown here was designed to meet the requirements of architectural design in the finest of fireplaces. The heated air flows from the tubes into a hidden distributing head from which it may be led by ducts, through



A Fireplace Designed to Throw Heat Into the Room Instead of Up the Chimney.

the masonry to registers placed at will in practically any position in the mantel or breast, above the mantel, or even in a room back of the fireplace or upstairs. By properly placing the registers—the standard ones are of simple classic design—they add a decorative but unobtrusive touch to the details of the fireplace.

The most exacting requirements can be met by especially designed registers, at a small additional cost, in cast or wrought iron, brass, ceramic tile, etc. The outline and period of design may be varied to meet any condition and blend perfectly with the mantel as a whole.

This model offers highly efficient heating and ventilation. The long tubes expose an exceptionally large area of heat absorbing surface concentrated in the hottest part of the fireplace opening. They rise in an even curve up the back wall of the fireplace, offering no resistance to the flow of air through them, and therefore deliver the greatest possible volume of warmed fresh air into the building.

Mail Box Has Lighted Name Plate

IT is now possible to let your mail box identify your home. This new mail box, with an illuminated name and number plate, easily visible both day and night, makes it



The Illuminated Name and Number Plate on This Mail Box Is Easily Visible Day and Night.

possible for your callers to find your home without searching in the dark and inquiring of the neighbors. In addition it is an improved, high quality mail box of the type that delivers the mail inside your house.

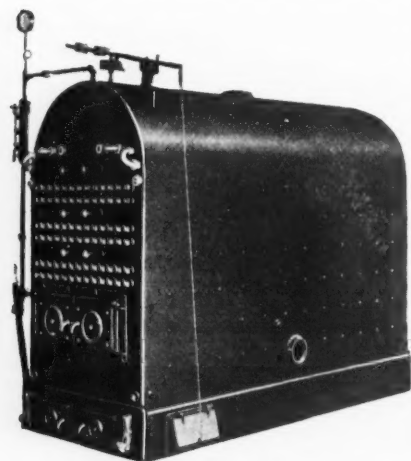
There is also a bell in a neat escutcheon above the name plate. The face may also be obtained in a plain style with only the word mail on a metal door. The face plate may be of brushed bronze, brushed brass, old English or aluminum finish. The door is self-closing with no mechanism to get out of order. Such equipment adds to the salability of a house and also offers an opportunity

for fill in work in dull seasons as it can be installed in old, as well as new, homes.

The chute is of heavy gauge sheet iron and is large enough for all letters, magazines and small packages. It is lacquered olive green. The inside door may be finished in mahogany, birch, oak or pine, to match interior finish of the house. The boxes are made in sizes for both frame and brick construction and are adjustable to variations in thickness of studding and plaster.

A New Heating Boiler

A NEW, electrically welded, steel heating boiler for steam vapor or hot water systems has recently been announced. This boiler is of the portable type, not requiring any masonry



This Boiler Requires No Masonry Setting and Is Adapted to Coal, Oil or Gas Firing.

setting, and is of the water tube design in which the products of combustion pass over the tubular heating surface on their long travel to the chimney.

The properly proportioned fire box and combustion chamber, large radiant heat absorbing surface, and long gas travel, together with rapid and positive water circulation (a characteristic of water tube boiler design) contribute to the high efficiency obtained in the use

of fuel. The boiler is adapted to coal firing, by hand or stoker, oil firing or gas firing.

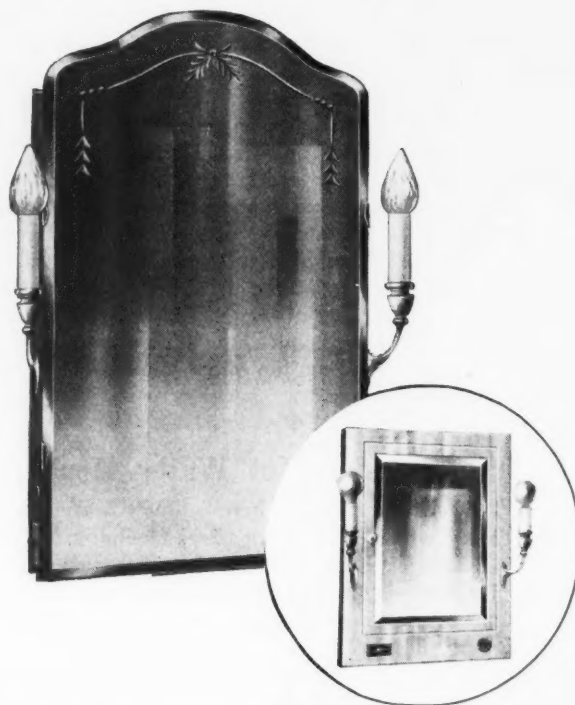
This boiler is constructed with two fire boxes, one at the front and the other at the rear. When it is coal fired, incinerator grates for the disposal of wet garbage may be installed in the rear fire box. When oil fired the burner is applied to the rear fire box, and garbage may be incinerated on the coal grates installed in the front fire box.

This boiler is also equipped with domestic hot water heating coils built integral with the boiler unit which generate an ample supply of hot water at considerable advantage over a separately fired hot water system, it is stated. The boiler is built in a range of sizes to meet the requirements of any building from a bungalow to a skyscraper.



Lighted Medicine Cabinets

A NOVEL, electrically equipped, medicine cabinet has been placed on the market recently and has already been adopted for installation in a number of fine new apartment buildings. This cabinet is fitted with two chromium plated light brackets, a convenience outlet and a switch for the lights. All four outlets are wired to one conduit box.



Medicine Cabinets Equipped with Two Light Brackets and a Convenience Outlet.

The convenience outlet permits the attachment of an electric curling iron, fan, heater or other electrical appliance without interfering with the lights. The light brackets are placed at just the right angle to give maximum illumination of the mirror.

These cabinets are built in eight models for home, apartment and hotel use. The illustration shows one of these models equipped with a Venetian mirror door. Another model is built with an open recess shelf at the bottom. A special feature added to the model for hotel use, where access to water valves is desired, is the towel rack and the razor blade slot.

These cabinets are made of 18 gauge steel, welded throughout. They are finished in either white Duco or baked enamel. They are also being produced in colors to harmonize with modern bathroom decorations. The steel cabinet forms a frame for a French plate mirror which is fastened to the door. The shelves are of glass with bulbed edges.

ARE YOU USING THE RIGHT TIRES FOR



"GOODYEAR ALL-WEATHER TREAD DUMP TRUCK TIRES GIVE US THE UTMOST IN TRACTION AND MILEAGE",
SAYS MR. ARTHUR BANGERT, PRESIDENT, BANGERT BROS. CONSTRUCTION COMPANY, FERGUSON, MO.

DUMP TRUCK WORK?

Almost every kind of trucking makes different demands on tires. Some trucks must cover long distances at high speeds—others must make frequent stops and starts—some must operate where there are no roads—still others must carry tremendous loads at slower speeds on paved streets and highways.

But one name identifies the right tire for every hauling job.

That name is GOODYEAR.

When you go to a Goodyear Truck Tire Service Station Dealer, you get careful, accurate recommendations showing exactly the right type of tire suited to your hauling job.

Whether your trucks work in excavations or haul building materials to construction jobs, they have to carry heavy loads where the ground is soft and tires need powerful traction. And they get that traction in the Goodyear All-Weather Tread.

There's a special Goodyear Dump Truck Pneumatic, a brute of a tire, with traction bars on the sidewalls. Many trucks are now adopting the new Goodyear Truck Balloon—it is spectacular in its ability to keep going under hard hauling conditions—as well as for its speed and mileage on the open road. Everything that balloon tires did for passenger cars, this new Goodyear Tire now does for trucks.

ON YOUR NEW TRUCKS SPECIFY GOODYEARS

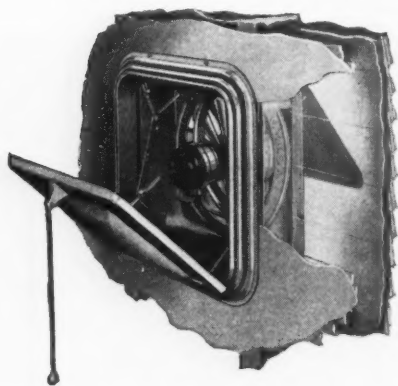
GOODYEAR

MORE TONS ARE HAULED ON GOODYEAR TIRES THAN ON ANY OTHER KIND

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Better Kitchen Ventilation

THE problem of ventilating the home kitchen has been claiming more attention every year and proper ventilation



This Ventilator Can Be Installed in a Wall of Any Thickness and the Door Excludes Cold and Prevents Condensation.

is now recognized as a health, comfort, social and economic necessity. The kitchen ventilating fan is as important in the modern kitchen as the shower is in the modern bathroom.

The installation of a ventilating fan, such as that illustrated, is simple. The design of the box incorporates a number of improvements. The doors are made from a single piece of heavy gauge metal, die stamped, and are

very strong and rigid. The box is made to fit walls of varying thickness and only one pair of rods need be adjusted to fit the box to the wall.

The motor is fully enclosed. The fan blades are set to handle a large volume of air at low speed thus assuring quiet operation.

The doors are operated simultaneously by one lever which also starts and stops the motor. The lever is so arranged that the doors are rattle proof. In cold weather the doors keep the cold air out when the fan is not in operation and, due to the double construction, condensation does not form.

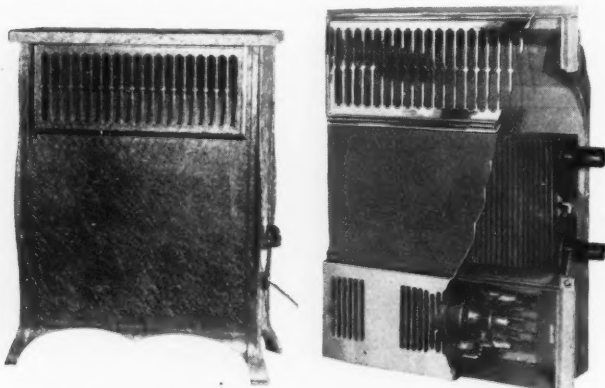


Electric Heating Units

THE new heating device shown here uses electricity for fuel. A motor driven fan draws the air into the unit, passes it through a specially designed heating element, and projects it into the room again. This unit can also be concealed within walls or partitions, eliminating visible radiators. The unit illustrated is portable and can be placed in any room where electric current is available. It is plugged into any wall or base outlet. The concealed units are served by wires in the walls leading directly to them.

The portable unit renders a new service as an auxiliary heating unit in bathrooms, bedrooms, sun parlors, cottages, and camps, at seasons when the usual heating system is not in operation and in winter when the usual heating system fails to heat certain rooms sufficiently.

These electric units are fully approved by the Underwriters



The Portable Electric Heating Unit, Left, and a Cut-Away View, Right, Showing Its Construction and the Fan That Assures Circulation.

Laboratories. They can not burn anything or anybody that may come in contact with them. They are entirely safe either within the wall or out in the room. The electric element is a low-temperature, non-glowing element which does not burn the air nor oxidize and destroy itself as do incandescent or glowing heat elements.

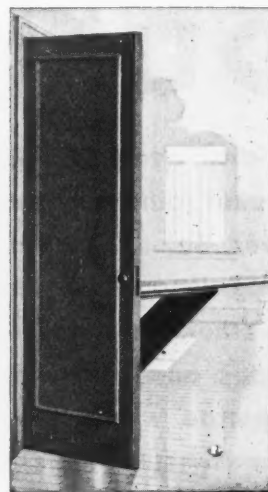
The motor which drives the fan, creating the air current through the heating element, is specially designed and built. It operates silently and without radio interference, on an electric current of 15 amperes, 110 volts, the usual domestic lighting current. The most popular size unit consumes 1½ kilowatts per hour at 110 volts and gives 5635 B.T.U. or the equivalent of about 23½ feet of direct radiation. Due to the greater distribution and diffusion of heat by these units, reliable authorities estimate the heating effectiveness to be equivalent to 35 to 40 square feet of direct cast iron radiation, it is stated.

The unit is manually controlled by a three-way switch. One turn of the switch starts the motor, creating a circulation of the air in the room and cooling it as would be done by an electric fan. Another turn releases electric current into half of the heating element. A third turn connects the remaining half of the heating element and delivers the full volume of warmed air into the room.



Two Built-In Ironing Boards

TWO types of built-in ironing board, suitable for easy and economical installation in either new or old homes and apartments are illustrated. Both of these serve not only as



Practical Ironing Boards Built into a Door or Installed on a Wall without Cutting the Plaster.

ironing boards but also, with the addition of a separate, folding table top, supply a handy breakfast or utility table measuring 24 by 36 inches.

The one type is built into a door suitable for a closet in bedroom, hallway or any other room. When use of the ironing board is desired, the door is opened and wedged in place with a separate hardwood wedge which is furnished with the door and is kept in a pocket in the door when not in use. A pull on the knob lowers the panel which serves as a support and a slight upward and forward lift drops the board onto the support. The knob fits into a slot in the board and holds it rigid without side play.

The second type of ironing board is similar except that it is a separate unit which it attached to the wall by means of screws. The installation does not require any knocking out of plaster or cutting away of lath as the unit is screwed onto the wall over the plaster. It can also be screwed to the back of a door.

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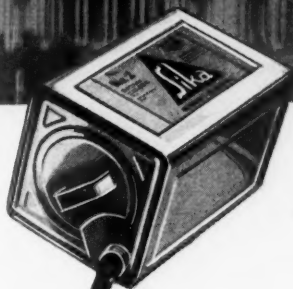
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Split-Second Control Has Saved St. Paul's



St. Paul's Cathedral
London
Started A.D. 1675
Completed A.D. 1710
Photograph by Ewing Galloway



THE delicate and difficult job of reconstructing the supporting piers under the dome of St. Paul's Cathedral, London, has been completed. Sika* was used to control the setting of the Portland cement grout which was used in the foundations. This grout had to be timed with split-second accuracy so as to flow freely into its appointed place and then set immediately.

Sika* is a liquid which makes Portland cement completely crystalline and, therefore, insoluble. Portland cement aggregates made with it are many times stronger, are impervious to water even under great pressure, and are not affected by dilute acids, by oils or by frost. It accurately controls the time of setting from 5 seconds up to 7 hours.

You ought to know all about Sika*. Send for complete information.

*Pronounced See-ka; the Sanskrit word for "Dry".



WATERPROOFS UNCONDITIONALLY

AMERICAN SIKI CORPORATION

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Montreal, P. Q., Canada

413 North State St.
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SANI-ONYX A Vitreous Marble



The New Way to Beautify Walls

FOR homes and public buildings specify walls, ceiling and wainscoting of Sani-Onyx. Here's a new and better material. Forty percent harder than marble, Sani-Onyx does not chip or check. Outlasts the building itself. No repairs or re-decoration. In plain sheets or tile-pattern slabs. Quickly installed; easy to clean and keep clean.

New colors and new surface textures make Sani-Onyx a truly modern material.

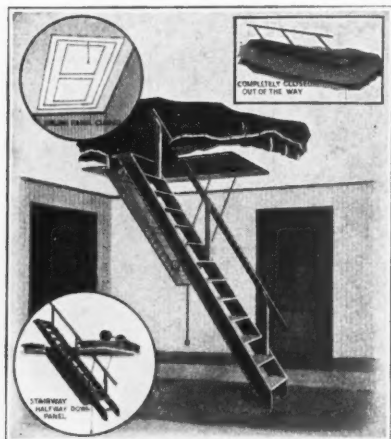
Send for a free portfolio picturing actual installations in full color.

MARIETTA MANUFACTURING CO.
80 BROOKSIDE : INDIANAPOLIS



Disappearing Attic Stairs

VALUABLE attic space is often allowed to go to waste because of the fact that the space required for a stationary attic stair can not be spared in the modern small, compact house.



Disappearing Stairs Make Attic Space Available without Sacrificing Floor Space.

Disappearing stairs, however, can be installed without sacrificing floor space.

A disappearing stair which has met the test of practical usage is illustrated. This stair is made in two styles. The more expensive style is available in three sizes while the less expensive style is made in one size only. The former is strongly constructed for the most severe service yet is nicely balanced for quick and easy operation.

It slides up through the ceiling on roller brackets attached to a ceiling door.

Steel cables winding on spring drums balance the weight of the stair and assist in lowering and raising. Very little effort is required to bring the stair into position.

The lower priced type is a serviceable, moderate priced unit with simple but efficient hardware. It is especially adapted to limited spaces as the ceiling door is smaller and the stair does not project as far into the room below. The operation is the same as that of the other style.



Automatic Heat Control

FAN circulating systems are the outstanding development of recent years in warm air furnace heating. When automatically controlled, in connection with the room thermostat control of the draft and check, the operation is nearly ideal. The illustration shows a device for satisfactorily accomplishing such control.



Thermostat Control for Warm Air Circulating Fan.

It operates either in conjunction with any standard type of room thermostat and damper motor, or with manual control of draft and check, or may be used independently as the sole fan control.

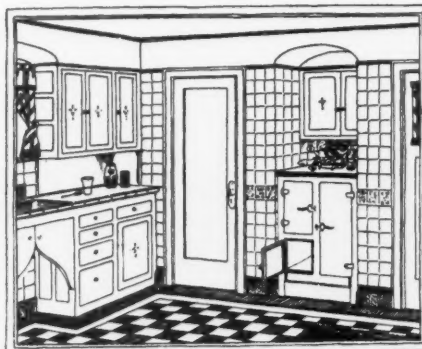
A weighted arm built into the instrument, which is easily installed in the top of the furnace casing, is used on all instruments where room thermostats or upstairs hand controls are employed, eliminating the need for a special temperature regulator motor with built-in line voltage switch.

A chain is run from this arm to the check damper so that when the room temperature reaches the desired degree either the thermostat automatically shuts off the furnace or, with hand control chains, when the occupants of the house decide to shut off the heat, this control arm is raised, the circuit to the fan is broken, and the fan stops, thus preventing any over-heating of the house, or unnecessary electric consumption by the fan.

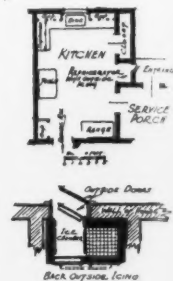
When additional heat is required and the check damper chain is released, the arm on the device drops and the fan is started only when, and if, proper circulating temperatures prevail in the casing.

Outside Icing Equipment

THE modern housewife has little time to give attention to admitting the ice man and often is away from the house at the hour when he usually arrives. Yet an ample supply of ice must be kept in the refrigerator at all times and the icing must not be neglected. The problem is well taken care of by the modern development of outside icing.



Outside Icing Is Easily Installed in Any Home Either Old or New and Provides Modern Convenience.



Outside icing is simple and can be provided in any home, either new or already built. There is no difference between the outside icing refrigerator and the older type of refrigerator except that, in addition to the usual doors, the refrigerator is provided with a door at the rear or end which can be reached from a door in the outside wall, or a door from outside directly into the ice box. The installation is inexpensive and adds to the value of the house.



Window Shades Improved

IN the selection of window shades for the larger buildings, economy is a major consideration, not the false economy of low first cost but the real economy of long and satisfactory service in relation to cost. The same principle can well be applied to the selection of window shades for the home.

There is now available a type of shade cloth which practically eliminates soil, weather and wear, the three common causes of frequent shade replacement. This cloth is completely waterproof so is not damaged by exposure to rain, snow and wind. It can be twisted and crumpled without damage. It contains no filler and so will not chalk, crack, pinhole or fray.

This cloth is impregnated with pyroxylin, the basic material used in modern automobile finishes which makes them so durable and wear resistant. When the shade is soiled in any way it can be taken down and scrubbed with soap and water, rinsed off, dried and put up again looking like new.

This cloth is now being made in corded and figured styles which add greatly to its decorative value and harmonize well with any room decoration.



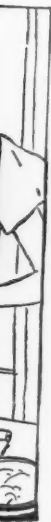
These Window Shades Can Be Kept Clean with Soap and Water without Damage.

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ADVERTISING PAGES REMOVED

Insulate with U. S. MINERAL WOOL

. COLD-PROOF . HEAT-PROOF .

FIRE-PROOF . SOUND-PROOF . VERMIN-PROOF



Cooler Rooms During Summer Heat

The insulation of your home with U. S. Mineral Wool is an assurance of greater summer comfort.

All rooms, even attic rooms, are many degrees cooler in summer, if protected with this all-mineral, indestructible and vermin-proof material. Placed in the walls and rafters and between floors of a house, U. S. Mineral Wool forms a protective shield through which torrid summer heat or frigid winter cold cannot penetrate. Insulation is a year-round comfort provider and a decided money saver.

Winter fuel bills are decreased about one-third and this annual saving steadily continues as Mineral Wool once installed will outlast the building.

Send coupon for free sample and illustrated booklet.

U. S. Mineral Wool Company
280 Madison Avenue, New York

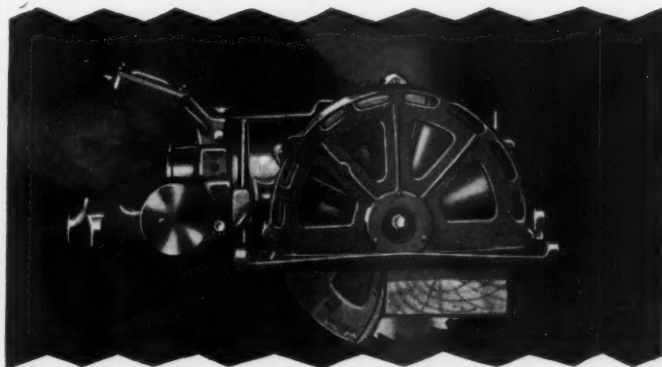
Western Connection:

Columbia Mineral Wool Co., S. Milwaukee, Wis.

U. S. MINERAL WOOL CO., DEPT. B
280 Madison Ave., New York
Send FREE sample and illustrated booklet to

Name.....
Address.....
City..... State.....

You Can't Buy a Better Saw!



—it will do more
work than any other
saw of its SIZE

SYNTRON

PORTABLE ELECTRIC

SAFETY SAW

Even a casual examination will at once reveal to you that the SYNTRON Safety Saw is an outstanding value. It is not only the most powerful saw of its size, but also the most efficient. It cuts quickly and evenly through the hardest wood, fibre, bakelite, lead, brass, etc., leaving a smooth, neat job.

Light in weight, evenly balanced, equipped with adjustable base, safety switch, safety guard, and precision ball bearings. It is made of the finest, durable materials. You'll be proud to own a SYNTRON SAW. Write for particulars about this famous saw.

SYNTRON COMPANY
400 Lexington Ave. Pittsburgh, Pa.
Mfrs. of Electric Hammers, Drills, Saws and Grinders

USE THIS COUPON • MAIL NOW!

400
Syntron Company, 400 Lexington Ave., Pittsburgh, Pa.
Please send me catalog and prices on Syntron Saws.
Name
Address.....

Trailer Mounted Installation Demonstrates Folding Door

THE manufacturer of a new, vertically folding door, suitable for private and public garages, factories and warehouses, has adopted a novel and effective method of demonstration consisting of a complete installation mounted on a trailer. This installation can be hooked onto a car or truck and taken right to the contractor, builder or dealer so that he may actually see the advantages of the door.

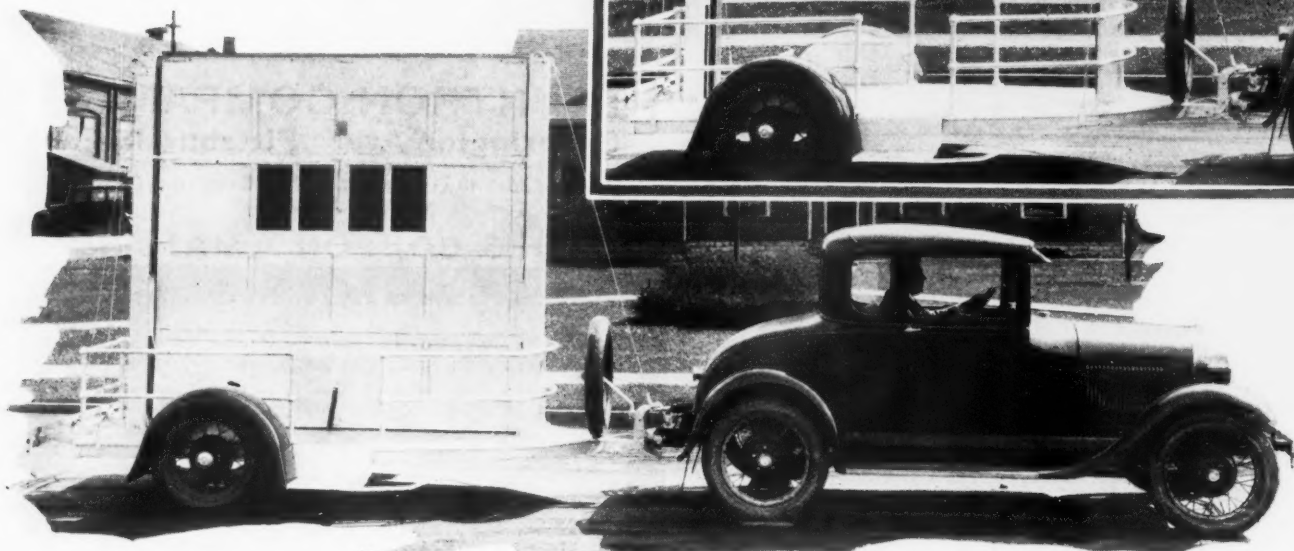
This door is something entirely new in design and construction. It requires no tracks or equipment of any kind on the ceiling and no springs are used. None of the mechanism is in sight as it is all enclosed in slender metal casings just inside the door jambs. These casings can be built in if desired.

Less than the usual ceiling height is required for the new door and it can be opened and closed even when the bumper of a car is almost touching it. It closes snugly against the frame, the joints are tongued and grooved. There is a flexible weather-strip at the bottom and permanent weather-proof fit all around. It is so constructed that it will never sag or stick and it is not affected by temperature changes. The operation of opening and closing is extremely easy and remains so permanently.

The woodwork is of the best quality white pine and fir and it leaves the factory with a priming coat of aluminum paint, or unprimed if preferred. It is shipped completely assembled, and crated, with all hardware in place, including a Yale cylinder lock. The installation is simple and easy. There is no fitting or adjustment required and the installation can be made in either new or old buildings.

The numerous advantages of this new door must be seen to be fully appreciated and it was because of this fact the manufacturers decided on the trailer mounted demonstration. It makes each feature clear to the prospective purchaser as no amount of description could possibly do.

Two Views of the New Vertically Folding Garage Door Mounted on a Trailer for Demonstration to Builders, Contractors, and Dealers. Right: The door open, showing the ample headroom. Below: The door closed, a neat compact installation.



Complete Temperature Control

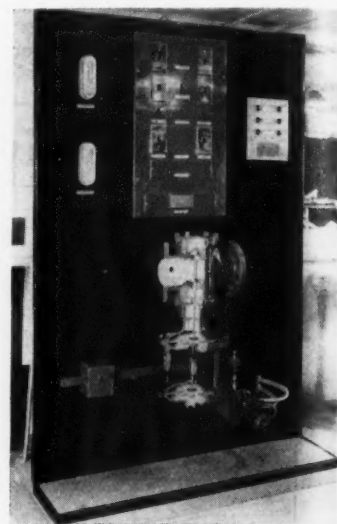
THE most satisfactory control of building temperatures results when the heating effect may be increased or decreased without entirely stopping and re-establishing the steam supply. This is especially true in large buildings making use of steam as the heating medium.

In such cases, if the steam is cut off from the radiators the occupants of the building or room notice the lack of radiant heat, and experience a chilling effect even though the thermometer indicates a comfortable temperature. In addition cutting off the steam supply entirely and then re-establishing it causes objectionable noises due to expansion and contraction of the piping.

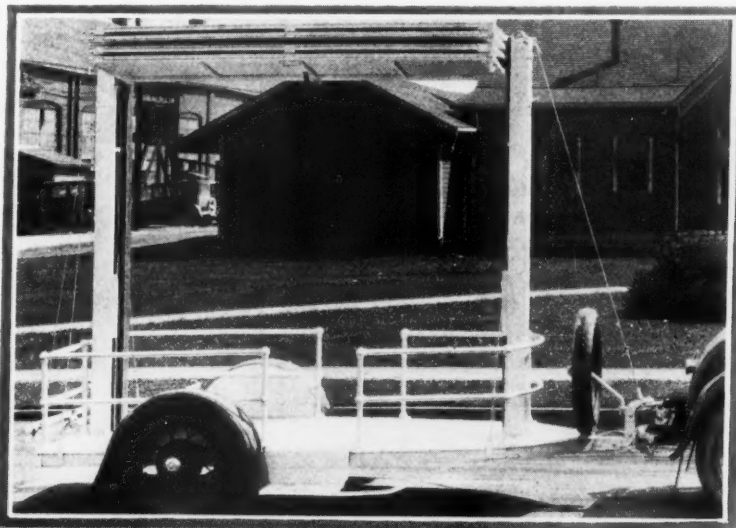
A differential vacuum heating system, used with a differential temperature control valve overcomes these objections. The steam supply to the system is continuous but varying in quantity.



The Portland Cement Association, 33 W. Grand Ave., Chicago, has published a general reference and handbook for 1929 under the title, "Cement and Concrete," which contains much useful information, including graphs and charts, on the cement industry.



This Control Increases and Decreases Heating without Entirely Stopping the Steam Supply.



Andersen's exclusive new frame features are helping the builder's sales and profits

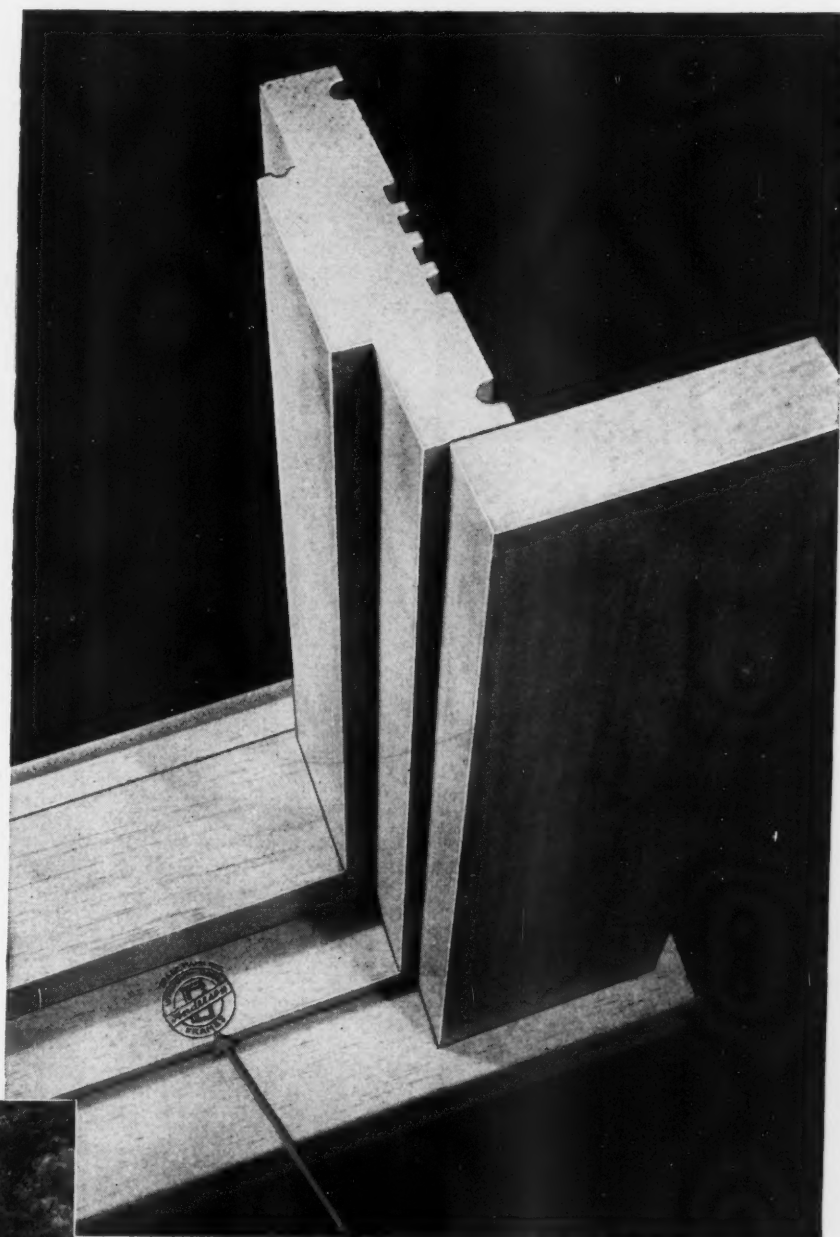
WINDOW and door frames — the new models perfected by Andersen — actually will help you increase your sales.

Andersen's new locked sill joint, steep sill slope and provisions for weathertight installation, are all patented features.

Builders now figure they save as much as \$1.00 per opening with these frames, milled so accurately that they can fit all sash and cut all trim at the bench.

You will get quick service because there are 3,500 Andersen dealers. Write us for the name of one near you and get a demonstration of this new frame of genuine white pine.

ANDERSEN FRAME CORPORATION,
Bayport, Minn.



MASTER
WINDOW and DOOR
Andersen Frames
FRAMES

FOR WEATHERTIGHT INSTALLATIONS — USE ANDERSEN SPECIFICATIONS

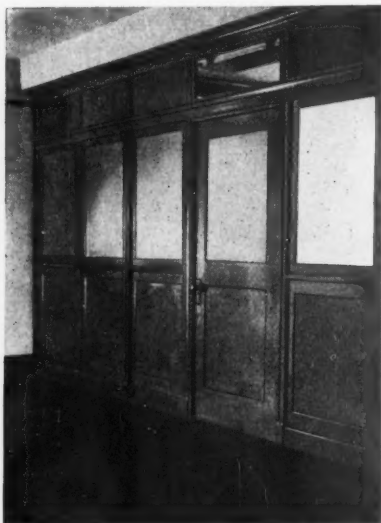
WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

What's New in Construction Materials

For further information in regard to any item described in the "What's New" Departments address, American Builder Information Exchange, 105 W. Adams St., Chicago

Standardized Unit Partitions

THE problem of dividing floor space in commercial buildings is quickly, simply, and economically solved by the use of standardized, sectional partitions and railings. These



Veneer and Glass Panels and Wood Frames Are Units of Partitions Which Meet Every Requirement.

standard units are made of clear, kiln dried woods with five-ply veneer panels which afford heavy, rigid construction. With them it is possible to install partitions without the delay and debris incidental to building or removing masonry partitions. A carpenter or handy man can do the work with a few simple tools and if rearrangement is required the partitions can be dismantled and moved without damage.

The railings are of wood with veneer panels, and are three feet five inches high. The partitions are seven feet 1½ inches high and the upper portion may be either veneer panels or glass panels, as preferred, ceiling height partitions are exactly like the standard partitions with veneer panel or glass transoms fitted above, to the ceiling. These units are furnished regularly in either oak or birch and are also available in mahogany, gum, walnut or quarter sawed oak, to special order.



Aged Effect in Shingles

A NEW asbestos shingle has been developed by one of the leading manufacturers as a result of the steadily increas-



Asbestos Cement Shingles Which Reproduce the Aged Effect of Old Colonial Roofs.

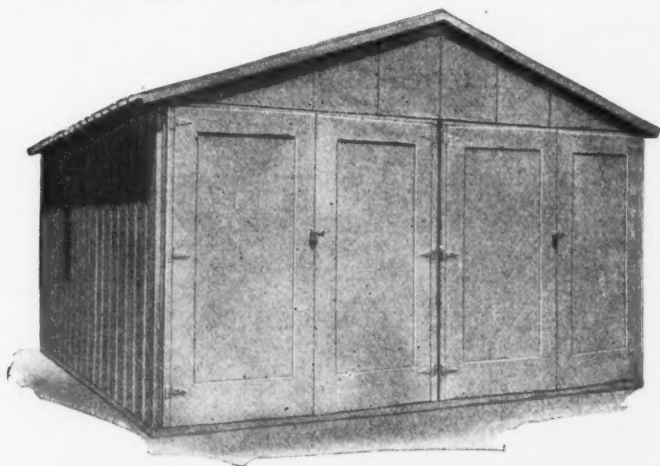
ing popularity of Colonial architecture. This shingle, made of a combination of asbestos fiber and portland cement, is described as being a counterpart, in appearance, when applied, of the aged, hand-hewn shingles of early New England.

In attempting to reproduce the charm of age in modern homes in Colonial style, the architect finds the greatest difficulty in the roof. In the past it has been almost impossible to obtain the desired qualities of color and surface texture by the use of new materials. The new shingle has the proper matured appearance when first applied, however, with the added advantage of durability.

This appearance is obtained by making the shingles in two thicknesses, approximately ⅝ and ⅞ inches which, when laid together, give the weather-worn texture. To further enhance this effect, the shingles have slightly ridged surfaces which, combined with the varying thicknesses, give a restrained but interesting effect, and the colors are in a range of warm grey tones. ✦

Portable Steel Buildings

A NEW line of portable steel buildings, suitable for use as garages, filling stations, machine shops, small factory buildings, watchmen's houses, field offices and many other purposes, has been announced by one of the leading manufacturers of steel building products.



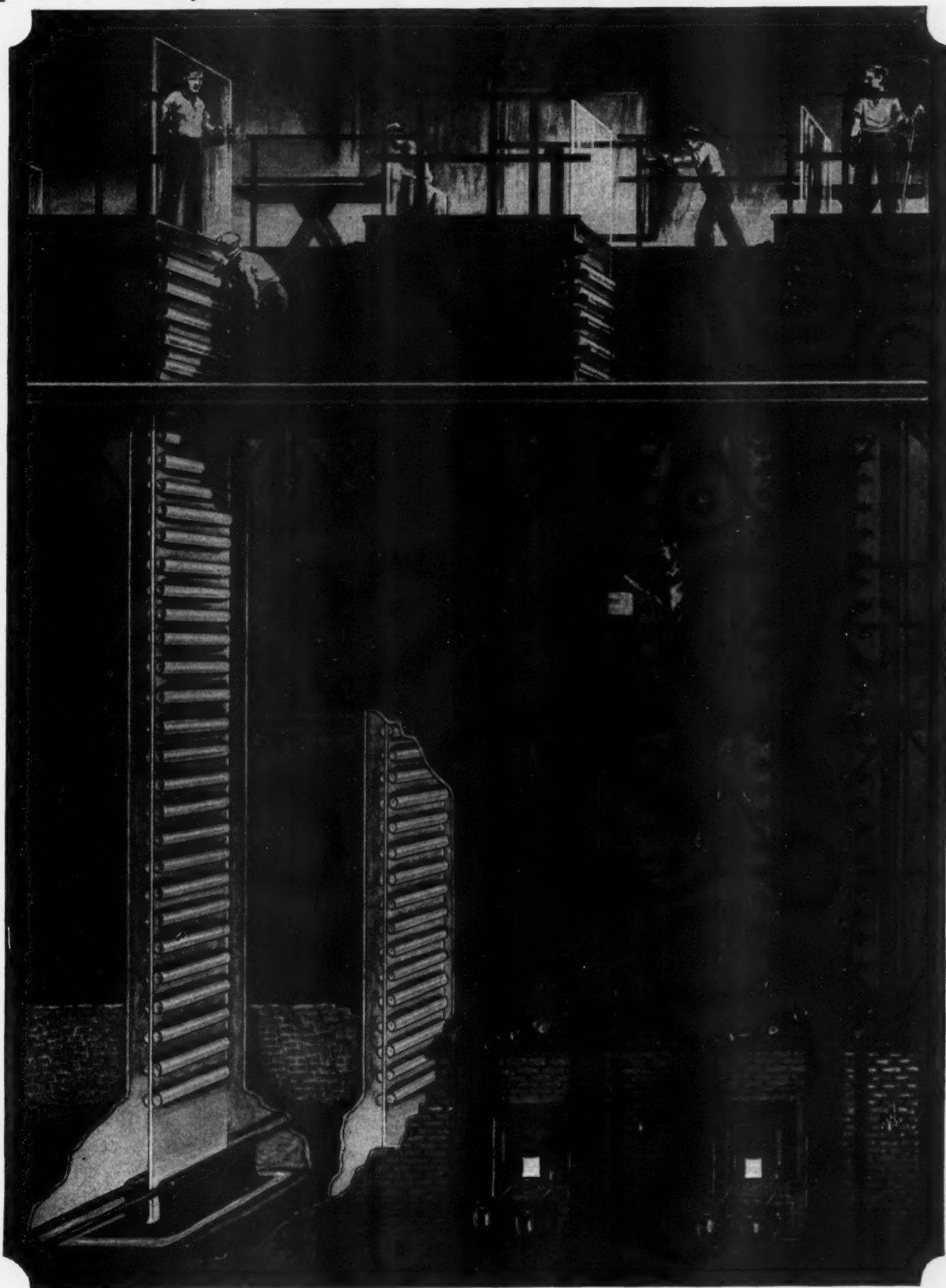
A Portable Garage, Built of Standard Steel Units Which Can Be Erected Speedily.

The fireproof qualities of these buildings make them particularly advantageous for use as filling stations and for the storage and handling of oil and other inflammable materials.

The buildings are designed for speedy erection with unskilled labor, as the standard sections are field assembled entirely by bolts. The supporting framework is of structural steel to which the sidewall and roof units are attached. The sidewall and roof units are formed from 24-gauge galvanized sheets. The solid wall, door and window units are interchangeable, permitting any desired arrangement of the doors and windows. Units can be added at any time and the entire building can be taken down and re-erected without damage.

A perfectly flat sheet from start to finish

VERTICALLY
DRAWN
FROM
THE
MOLTEN
METAL
TO
FINISHED
STATE



For four years the Adamston method of *Vertically Drawing* Flat Glass in continuous sheets has produced glass of unequalled uniformity. A clear glass, perfectly flat, free from defects and of great tensile strength. As the above sectional illustration shows—it *has* to be flat because it is made flat from start to finish.

ADAMSTON FLAT GLASS COMPANY, CLARKSBURG, W. VA.



A Brand You
Can Depend Upon

Eastern Sales Office
1 Madison Ave.
New York City

Western Sales Office
11 So. LaSalle St.
Chicago, Ill.

What's New in Contractors' Equipment

For further information in regard to any item described in the "What's New" Departments address, American Builder Information Exchange, 105 W. Adams St., Chicago

Inexpensive Oilstone Grinder

IN response to the demand for a popular priced oilstone grinder, a well known manufacturer has designed and placed on the market a very efficient, compact unit that will answer all requirements and sell for a very low price.



This oilstone grinder is equipped with $\frac{1}{2}$ h. p. motor. There are no belts in the construction, the motor being directly connected. The oilstone wheels are geared for the proper speed.

The equipment includes two oilstone wheels, a fine and a coarse, an emery wheel and a cone. The fence is easily and quickly adjusted for any angle with a positive locking arrangement. The adjustment for moving the fence to and from the wheel is governed by a conveniently placed hand wheel.

The oil reservoir has a large capacity, and is immediately above the motor housing, making the whole unit compact and requiring a very small space—20 by 21 inches. The flow from reservoir to the wheels is controlled by petcocks.

The machine can be supplied with or without the stand. At the price quoted on this new product, it is now economical to place oilstone grinders conveniently about the plant or in the shop so that tools can be quickly and easily sharpened.



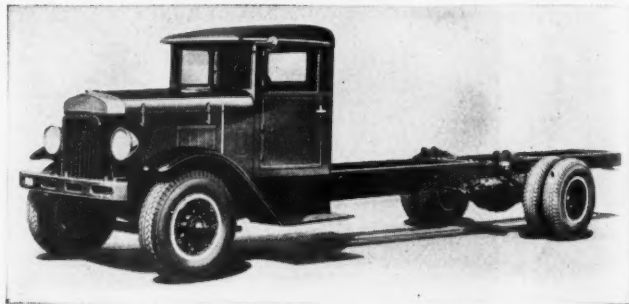
Two Heavy-Duty Trucks

THIS new truck, made in two models, is a recent addition to a well known line of heavy-duty motor trucks. The rated capacities of these new units are respectively $2\frac{1}{2}$ tons and $3\frac{1}{2}$ tons. Both trucks are of the double reduction drive type and each is available in five wheelbases, the $2\frac{1}{2}$ ton from 130 inches to 200 inches, and the $3\frac{1}{2}$ ton from 144 inches to 235 inches.

Style in motor trucks is something new, but it is increasingly being demanded by the up-to-date business man, who is realizing more and more that his hauling units are very effective mediums for directing attention to his business activities. Attractiveness in design, finish, and appearance have accordingly received serious consideration by the engineers in the development of these units.

This is evidenced especially by the pleasing lines of the three-piece hood with its controllable ventilators and the modernly equipped all-steel cab, a touch of brightness provided by the chromium-plated radiator cover and lamp rims, and attractive colors in which the trucks are finished. The frame, chassis and wheels are finished in red paint; the hood, cowl and cab in gray-green lacquer; and the fenders and running boards in black enamel.

The engines of the new trucks are of the four-cylinder valve-in-head type with overhead camshaft and valve mechanism.



Attractive Appearance, Which Has Advertising Value, as Well as Efficiency, Is Featured in This New Truck.

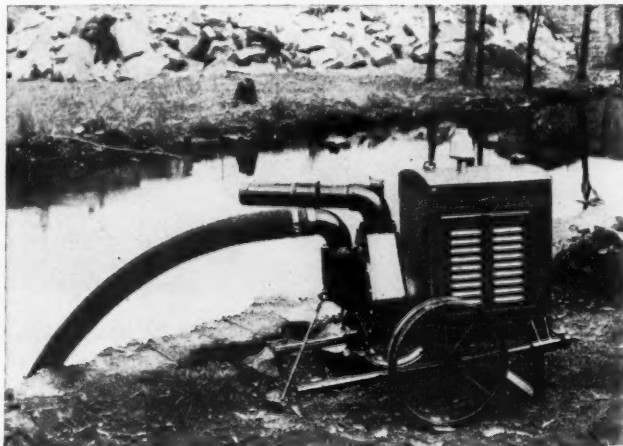
ism. Each consists of five independently maintained sub-assemblies which greatly simplify servicing and thus help keep the trucks on the job. All parts are easily accessible, making possible a quick check-over.

An unusually strong pressed-steel channel frame designed especially for heavy hauling service, internal expanding four-wheel brakes, a steering column set at an angle that provides maximum foot room for the driver and thus adds to his comfort and convenience, shatter-proof glass in the rear of the cab, and an attractive front bumper are other features of these new trucks worthy of mention. A wide range of transmission speeds—five forward and two reverse—makes possible efficient operation under a variety of road and hauling conditions. ✦

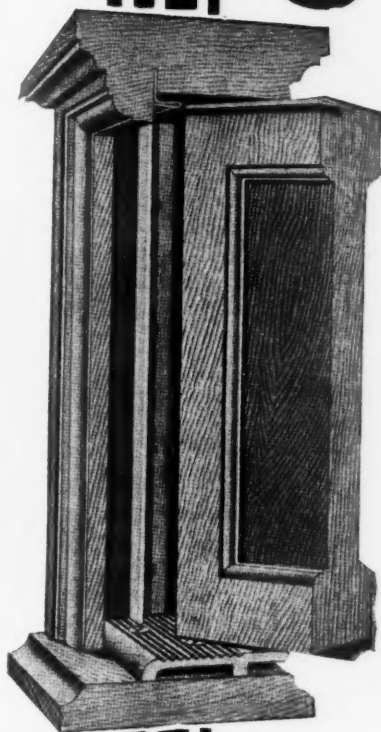
New Four-Inch Pump

A WELL known company has announced an addition to its line of portable equipment, a new, self-priming, portable, 4-inch, centrifugal pumping unit with built-in gasoline engine.

This pump is self-priming without use of auxiliary pumps or vacuum apparatus. The pumping capacity is 25,000 gallons per hour; the suction lift is 20 feet. The bronze impeller is of the open type. Powered by a 8-10 h. p. 4-cylinder gasoline engine of well known make, the complete unit weighs 730 pounds.



A New Self-Priming Pump Which Requires No Auxiliary Pump or Vacuum Apparatus.



START NOW— SELL-INSTALL-COLLECT ACCURATE METAL WEATHERSTRIPS

Install "Accurate" Metal Weather Strips. Recommended by all leading Architects and Building Contractors. Assure yourself of steady profitable work. Every building, old or new, is a prospect. Just think of this unlimited field. You can be your own boss; sell, install and collect.

"Accurate" Metal Weather Strips keep out dirt, dust and weather. We guarantee all our materials—Brass and Bronze—also Zinc, which is cut and formed across the grain, (sheet Zinc) which is not subjected to cracking in cold weather.

Let us send you complete information and samples. We will help you get started in this profitable business. Fill out the coupon and mail today.

ACCURATE METAL WEATHERSTRIP COMPANY

208 East 26th Street
New York City

ACCURATE METAL WEATHERSTRIP CO.,
208 E. 26th St., New York City

Please send me samples and complete information, on how to start a weatherstrip business of my own.

Name.....
Address.....
Town.....
State.....

A Dependable "American" Sander for Every Purse and Purpose



The 12 inch
American Universal

NO matter whether your sanding jobs require a small 6-inch portable sander or a machine twice the size . . . there is an AMERICAN sander that will completely meet your needs. Hundreds of leading Building Contractors and Floormen *everywhere* use and endorse AMERICAN sanders because of their speed, operating ease and dependability. For your own profit and satisfaction . . . you too should use this modern floor sanding equipment.

Ask for
Five Day
Free
Trial



The American Sanderplane

. . . for sanding edges and butt ends with the grain.
. . . for cabinet, trim, bench and repair shop sanding.



The 8 inch
American High Production

Why not let us demonstrate an AMERICAN sander to you on your next sanding job? Or, we'll gladly send one to you that you can try out for five days. At any rate, we strongly urge that you get the complete facts. Mail the coupon TODAY . . . there is no obligation.

The American Floor Surfacing Machine Co.
515 South St. Clair St. Toledo, Ohio Dept. H.

Gentlemen:—

Please send without obligation circular, price and payment plans covering ☐ American Floor Sanders ☐ American Sanderplane.

Name.....
Street.....
City.....State.....

News of the Field

Convention and Show Dates

Oct. 13-17, 1930—American Gas Association, Annual Convention, Municipal Auditorium, Atlantic City, N. J.
Oct. 28, 1930—American Institute of Steel Construction, Inc., 8th Annual Convention, Pinehurst, N. C.



12-Hour Day Eliminated

A FINAL elimination of the 12-hour working day, involving shorter hours for men on that schedule and giving employment to others, has been worked out in the plants of the Universal Atlas Cement Company, according to B. F. Affleck, president of the company.

Mills which were owned by the former Atlas company came under the United States Steel Corporation rules through the purchase of the Atlas Portland Cement Company's business and properties in January and their consolidation with the Universal Portland Cement Company, a U. S. Steel subsidiary. One of these rules is that no man shall work more than 10 hours per day or more than six consecutive days.



Peavey Acquires Flax-li-num

AN ANNOUNCEMENT has been made that the controlling interest in the Flax-li-num Insulating Co., St. Paul, Minn., has been acquired by F. H. Peavey & Co. H. B. Harden had been made vice-president, general manager and sales director. J. B. Gilfillan, president of Van Dusen-Harrington Co., one of the Peavey controlled corporations, has been made president, and Frank Evans is secretary-treasurer.



Sika Opens Chicago Branch

THE American Sika Corporation, 56 W. 45th St., New York City, has opened a branch office at 413 N. State St., Chicago. This organization is introducing into this country waterproofing compound which has been highly successful in Europe for many years.



Masonite Buys Dowd Form System

MASONITE Corporation, 111 W. Washington St., Chicago, has bought outright the Dowd Concrete Form System, Inc., according to an announcement recently made by Brown Katzenbach, vice-president. The Masonite Corporation will make the Dowd concrete form system available to all contractors without any charge.



Weatherwood Now in Production

PRODUCTION was started during the first week in July on Weatherwood, the new insulating board made by the Chicago Mill & Lumber Corp., of Chicago, at its plant in Greenville, Miss. Production is now under way at full capacity and the present rate will permit the company to take care of unfilled orders within a few weeks.



Reorganize Sales Force

THE A. M. Byers Company of Pittsburgh has reorganized and expanded its sales and distributing facilities to meet the steadily increasing demand for wrought iron pipe.

Piatt Distributors Appointed

THE Motor Wheel Corporation, Lansing, Mich., has announced the appointment of two new distributors for its Piatt water heaters—the Day and Night Water Heater Company, of Monrovia, Cal., and the Perego Corporation, of Milwaukee, Wis. The almost instant success of these two companies, both of which, though but recently appointed, are ordering in carload lots, indicates a very rich potential market for domestic utilities and one which responds readily to sales pressure, in spite of the depressed general business conditions prevailing during the last two or three months since these distributors were appointed.



Personnel Announcements

MR. L. K. SIMONS has joined the Reading Iron Company, Reading, Pa., and will be in charge of operations at the company's cut nail plant in Pottstown, Pa.

THE C. F. Pease Company, 813 North Franklin Street, Chicago, announces the appointment of Mr. C. D. McCormick, formerly assistant advertising manager, as advertising manager to succeed Mr. W. Earle Pashley, now second vice-president and assistant sales manager.

WALTER F. TANT, president of the Silent Automatic Corporation of Detroit, was elected president of the American Oil Burner Association at the seventh annual convention of the organization at the Hotel Stevens in Chicago.

THE Truscon Steel Company of Youngstown, Ohio, announces the appointment of Mr. Oscar W. Loew, formerly director of advertising and sales promotion, as a vice-president.

THE May Oil Burner Corporation of Baltimore, Md., has recently appointed two new members to its staff in the persons of Mr. Millard Bennett and Mr. C. J. Cooper, Jr., the latter to assist Mr. P. H. Jacobson, district manager in Chicago, and the former to operate in New England territory with headquarters in Boston.



Walter F. Tant, President of the Silent Automatic Corp., Who has Been Elected President of the American Oil Burner Association.



Concrete Floors for Residences

(Continued from page 65)

probably was charged off on the first few jobs and thus increased the construction costs. Concrete residence floors, however, have now become so well established that many progressive contractors are becoming thoroughly familiar with the construction and are well equipped to do this kind of work. As a result, the incorporation of a concrete floor rarely increases the total cost of a residence by more than 1½ per cent. It is safe to assume that as more homes are built with concrete floors the cost will eventually be no more than for a home built with ordinary floors.

C. L. White Motor
Co. Garage
Bradford, Pa.

INCREASE YOUR ORGANIZATION
WITHOUT INCREASING
YOUR OVERHEAD " "



LET
INTERNATIONAL
DESIGN YOUR PROSPECTIVE
BUILDINGS FREE " " " "

Structural Steel
Ornamental Iron

Skylights
Marqueses

Modern Garages
Airplane Hangars

Steel Ceilings
Freight Elevators

Modern Store
Fronts
Millwork Glass

The thoroughly efficient, perfectly equipped International engineering department is at your service. Without adding a dollar to your overhead you can add this planning department to your organization.

To utilize this unusual service you simply send us specifications or rough sketches of your prospective building — we'll draw plans, prepare estimates on materials we furnish, in fact, do practically everything an engineering department of your own could do. And, because we have so many varieties of standardized material to draw from, our plans are usually easier to use and our quotations on materials are usually low.

This service applies to store fronts and store buildings, garages, warehouses, factories, airplane hangars, etc. — large or small.

INTERNATIONAL
STEEL & IRON
COMPANY
1330 Edgar St. Evansville, Ind.

International's
Architectural
and Engineering
Department



STORE FRONTS



Through years of experience, Kawneer craftsmen have acquired the art of rendering in metal (cast, drawn and extruded) distinctive and efficient store fronts of any size or design. Write for book of outstanding installations.

Kawneer
BRONZE
STORE FRONTS

THE KAWNEER COMPANY, NILES, MICHIGAN
KAWNEER MFG. CO., BERKELEY, CALIF. (SUBSIDIARY)
Manufacturers of
RUSTLESS METAL STORE FRONTS, WINDOWS and DOORS

Now Called Milcor Steel Company

EFFECTIVE July 1, 1930, the Milwaukee Corrugating Company, of Milwaukee, Wis., and its subsidiaries became the Milcor Steel Company. The change in name was made because the name Corrugating now represents only a



Left: Louis Kuehn, President of the Milcor Steel Co. Right: A. J. Luedke, Secretary-Treasurer.

small portion of the business which was originally established for the manufacture of corrugated metal roofing. It also brings the old Milwaukee Corrugating Co. and the Eller Manufacturing Co. into the same manufacturing group as far as the trade and the public are concerned.



Plan Architectural Competition

THE Common Brick Manufacturers' Association of America is holding the Third Common Brick House Competition this year. Only photographs and blue print floor plans are necessary, photographs constituting the main entry. The competition will close on November 18.

Houses to be eligible must have at least 75 per cent of the exterior surface of their walls built of common brick. Architects may submit only houses actually completed from their plans.

The prizes will be: first, \$500; second, \$300; third, \$200; fourth, \$100; with six honorable mentions of \$50 each. The jury of award will consist of three architects of national reputation.



Schlage Will Enlarge Plant

THE Schlage Lock Co., San Francisco, Cal., has awarded a contract to the Austin Co., engineers and builders, for the expansion of its plant, at a cost of \$25,000. The additional facilities are needed because of the expansion of the company's business during recent months beyond the capacity of the present plant.



To Teach Better Plastering

A CORRESPONDENCE Course on the Analysis of Better Plastering and Lathing is being offered by the Associated Metal Lath Manufacturers, located at 205 West Wacker Drive, Chicago.

The association is printing only a limited number of courses, based on the applications received before going to press.

Consolidation Completed

THE National Equipment Corporation—a consolidation of the Koehring and T. L. Smith Companies of Milwaukee, the Insley Manufacturing Company of Indianapolis, the Parsons Company of Newton, Iowa, and the Kwik-Mix Concrete Mixer Company of Port Washington, Wisconsin, became an operating company on January 1, 1930.

Mr. Philip A. Koehring is president and general manager of the National Equipment Corporation, with headquarters at 31st Street and Concordia Avenue, Milwaukee.

Sales, service, advertising and accounting departments have been centralized, thereby rendering a more efficient service to customers, as well as effecting economies in operation, and overhead.



Cement Companies Merged

A RECENT announcement states that the business of Atlas Portland Cement Company and Universal Portland Cement Company has been merged and is now conducted by Universal Atlas Cement Company, subsidiary of United States Steel Corporation. The Atlas and Universal organizations are brought together through the Atlas sale to the United States Steel Corporation of which the Universal company is a subsidiary.



Revere Awarded Ad Prize

AN advertisement of Revere Copper and Brass Incorporated, 230 Park Avenue, New York City, entitled "The Smoke Marks Paul Revere's Foundry," received the Harvard award for the advertisement published in 1929 most distinguished for its effective use of typography. The prize winning advertisement was the second ever published by Revere Copper and Brass, Incorporated, a consolidation of six old and well known companies in the copper and brass field.



Change of Address Announced

THE Chain Belt Company announces that its New York office has been moved from 50 Church Street to the new Chrysler Building, 405 Lexington Avenue.

THE New York office of the Concrete Steel Company has been moved from 42 Broadway to 2 Park Avenue.



New Realtor Officers Elected

The following officers were elected at the Toronto Convention of the National Association of Real Estate Boards for the year 1931 to take office next January:

Harry S. Kissell, Springfield, Ohio, President.

William H. Gardner, Winnipeg, First Vice-President.

Other vice-presidents elected were: J. C. Nichols, Kansas City; George D. Robertson, Los Angeles; August C. Sehrt, Milwaukee; and Colonel Goodwin Gibson, Toronto. Earle G. Krumrine, Chicago, was re-elected treasurer.

An important action of the Convention of great interest to builders was the appointment of a committee to draw up a program to assist local real estate boards and city planning bodies in curbing excessive subdivision of land.



OAK FLOORING
*like this makes a house
worth more*



HOUSES laid with "Perfection" Brand Oak Flooring command a better price on the open market.

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Fig. 690

Four men can use this Variety Woodworker at once. Cut-off and Rip Saw with Boring Attachment, Mortiser and Jointer all in one. Send today for free booklet No. 82.

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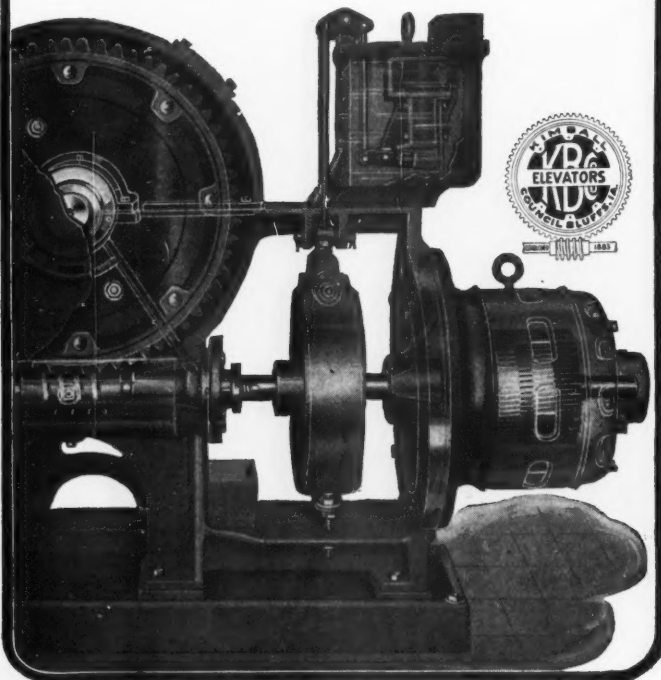
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THE Chicago Lighting Institute, 20 North Wacker Drive, Chicago, is now open for inspection. This Institute is purely a non-commercial venture. It is essentially a "museum of light" intended to create a better understanding of the uses of illumination. This permanent project is sponsored by the following electrical companies: Benjamin Electric Manufacturing Company, Byllesby Engineering and Management Corporation, Central Public Service Corporation, Commonwealth Edison Company, Curtis Lighting, Inc., The Electric Association, General Electric Company, Middle West Utilities Company, Midland United Company, North American Light and Power Company, Public Service Company of Northern Illinois, United Light and Power Engineering and Construction Company, and the Westinghouse Lamp Company.



Loading Method Improved

THE Weyerhaeuser affiliated sawmills, as a result of studies and experiments to assure receipt by retailers and contractors and other users of packaged lumber in A-1 condition, have adopted a new style of loading lumber for rail shipment, known as cargo-loading.

Cargo-loading involves a number of unique practices in lumber loading at the mills. It involves extra expense, but virtually assures receipt of the re-manufactured and packaged lumber by retailer and user in the same fine condition in which it leaves the machine.



Books, Bulletins and Catalogs for You

THE literature and publications listed here are available to the readers of American Builder. They may be obtained from the firms mentioned and will be forwarded without cost except where a price is noted.

The Central Radiator Co., Graybar Bldg., New York, has published three pamphlets, "Lansdale-Craig Water Tube Heating Boilers," "Getting All the Heat Out of Coal," and "Let the Gray Sentry Protect Your Home Against Winter!"

David Lupton's Sons Co., Allegheny Ave. and Tulip St., Philadelphia, has issued Bulletins 16dl and 16el, presenting details and specifications for Lupton steel industrial doors and Lupton commercial projected windows.

"Judelson Dryers" is Catalog No. 29 of the Judelson Dryer Corp., Moundsville, W. Va., presenting drawer and cabinet styles in their clothes dryers.

The Newman Manufacturing Co., Cincinnati, Ohio, has published a catalog of their perforated and cast grilles, and radiator enclosures, illustrating their numerous designs, and giving specifications.

The General Electric Co., Bridgeport, Conn., has a catalog announcing the new non-corrosive G-E Fiberduct for under-floor wiring.

The Structural Slate Co., 1030 Robinson Ave., Pen Argyl, Pa., has issued a second edition of its "Struco Slate Review." This magazine, beautifully illustrated, is to acquaint the readers with the many uses and advantages of slate.

The Truscon Steel Co., Youngstown, Ohio, has issued a booklet describing its new 4-inch welded steel fabric suitable for general reinforcing work. This company has also published another booklet describing its standard casements with casement screens.

"Crittall Metal Windows" is a new booklet, profusely illustrated, of the Crittall Casement Window Co., Detroit, Mich. It describes in detail the Universal, Norman and Stanwin casements and gives complete specifications.

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In addition, it contains **AN ILLUSTRATED SPECIFICATION FOR RESIDENTIAL CONSTRUCTION**. The specification is in a form that may be changed by a word here and there and by omitting certain sections. A complete house specification can be prepared in only a few minutes' time. Everything has been listed—it is the most complete form for a house specification ever published.

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Books, Bulletins and Catalogs for You

THE literature and publications listed here are available to the readers of American Builder. They may be obtained from the firms mentioned and will be forwarded without cost except where a price is noted.

The Reading Iron Company, Reading, Pa., has published a booklet, "Pipe Pointers for Home Builders," describing and illustrating the use of Reading genuine wrought iron pipe in homes.

"Hand-to-Mouth Buying," by Leverett S. Lyon, published by The Institute of Economics of The Brookings Institution, 26 Jackson Place, Washington, D. C., is an analysis of the extent to which hand-to-mouth buying exists, the effects and the permanency of this practice. This has been chosen by the Business Book League as the outstanding business book of December, 1929. Price, \$4.00.

Edison Lamp Works of General Electric Co., Harrison, N. J., offers four new bulletins, "Luminous Harmony in the Home," "Electric Light on the Farm and in the Rural Districts," "Looking Ahead in Aviation Lighting," and "Floodlighting."

"Art in the Cellar" is the name of an illustrated pamphlet published by the May Oil Burner Corp., Baltimore, Md.

The Detroit Steel Products Co., Detroit, Mich., has just published two booklets, "Industrial Airation" and "Industrial Daylighting," which present the results of seven years' research by engineers, and which will be of special interest to architects and designers of industrial buildings.

Knape & Vogt Manufacturing Co., Grand Rapids, Mich., has issued their Catalog No. 12, "Hardware for Show Cases, Cabinets, Desks and Furniture," covering all the products they manufacture in this line. This company has also published a booklet, "The Clothes Closet and the Housewife," showing the various K-V fixtures for use in clothes closets.

"A Study of the Oil Burner as Applied to Domestic Heating" is the title of Technical Bulletin No. 109, of the U. S. Department of Agriculture, which was prepared by Arthur H. Senner, Assistant Mechanical Engineer, Division of Agricultural Engineering, Bureau of Public Roads. Price, 20 cents.

"Today's Building Estimator," by I. P. Hicks, has been published by the William T. Comstock Co., New York, and is a handy reference book planned to enable the estimator, contractor or architect to keep accurate and complete estimates of every job. Price, \$1.25.

The Crowe Manufacturing Corp., 317-321 Sycamore St., Cincinnati, Ohio, has issued a booklet on "Crowe Safety Saws," which are manufactured in a variety of styles and sizes.

David Lupton's Sons Co., Philadelphia, has recently published two attractive booklets, "Lupton Casements of Steel," and "Better Windows for Your Home," illustrating the use of its casements in homes and apartment buildings.

"The Philadelphia Plan of Home Financing" is the title of Research Monograph No. 2, published by The Institute for Research in Land Economics and Public Utilities, 337 E. Chicago Ave., Chicago. This was prepared by William N. Loucks, Assistant Professor of Economics, Wharton School of Finance and Commerce, University of Pennsylvania, and is a study of the second mortgage lending of Philadelphia Building and Loan Association. Price, \$1.50.

"The Most Efficient Central Heating System in the World!" is the title of a booklet published by the General Iron Works Co., Cincinnati, showing the installation and operation of the Hot-Kold heating and ventilating system in homes and industrial plants.

Harvey Hubbell, Inc., Bridgeport, Conn., has issued Bulletin SP-19B, listing the latest Hubbell electric wiring devices.

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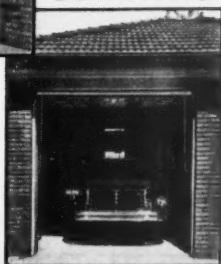
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